An evaluation of a short term cognitive behavioural anger management intervention for key stage two pupils.

Susanne Elizabeth Watson

Institute of Education, University of London

Submitted in partial fulfilment for the Doctorate in Educational, Child and Adolescent Psychology

Acknowledgements

I would like to thank Greta Sykes, Eirini Flouri and Erica Mcateer. I would also like to thank Sima Dosani and Rachel Cole.

I would like to offer my thanks to the children, parents and school staff who took part in the study. My thanks go to Kent Educational Psychology Service, in particular to Ben Hayes.

Abstract

The aim of this research is to evaluate the effectiveness of a short term, cognitive behavioural anger management intervention, for improving the emotional and behavioural outcomes of children aged 7-11. The study investigated whether locus of control acts as a mediating variable and whether age, gender, socio-economic status and family stress act as moderating variables for the intervention. Interviews were undertaken to explore factors which impact on the success of the intervention.

In all, 70 Participants took part in a 6 week school based group run by trainee educational psychologists. An experimental versus wait-list control design was used. Questionnaires were delivered pre and post intervention and at a 3 month follow up. The questionnaires administered included: Multidimensional Measure of Children's Perceptions of Control, Adverse Life Events and Strengths and Difficulties Questionnaire. A sub-sample of children, parents and facilitators participated in semi-structured interviews post intervention.

Data from questionnaires and demographic information were analysed using multiple linear regression analyses. The intervention was shown to be effective post intervention, but only for those children in the wait-list control group. For the children in the wait-list control group the intervention was moderated by age, with younger children benefiting more from the intervention. No other variables investigated acted as mediating or moderating variables. The thematic analysis of the interviews identified a number of factors which impacted on the success of the intervention including, factors which supported the running of the group

and factors which made running the group more difficult. Findings point towards a number of practical implications for the delivery of therapeutic interventions in schools. The current study highlights the need for future research to explore school factors and group processes in addition to individual child and family factors which impact on the success of CBT based group interventions.

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

This piece of research was undertaken jointly with 2 trainee educational psychologists from the University of East London and University College London. Please see appendix 35 for further details of the nature of the research collaboration.

Word count (exclusive of appendices and list of references): 34,992

Contents

Tables:

Appendices:

1: Introduction

This study deals with one of the most important issues within education and society today, that of child emotional well-being and behaviour. A great deal of government attention and funding has been focused on improving the behaviour and emotional well-being of children and young adults, including Every Child Matters (DfES, 2004), National Service Framework (2004), The Children's Plan (DCSF, 2007) and National Institute for Clinical Excellence (NICE) guidelines (2008). Despite the number of government initiatives and programs which have been developed to ameliorate such difficulties, there has been a lack of any significant improvement. Difficulties in relation to behaviour and emotional well-being remain a considerable concern.

1.1: Behaviour and emotional well-being

In recent years the promotion of children and young people's mental health and emotional well-being has become an increasing priority for the British Government and indeed the professionals and services which work with children and young people. Collishaw, Goodman, Pickles and Maughan (2007) highlighted that between 1974 and 1999, there was a considerable increase in the number of children experiencing behavioural and emotional difficulties. Maxwell, Yankah, Warwick, Mehmedbegovic and Aggleton (2007) indicated that one in ten children and young people have a diagnosable mental health difficulty and that the difficulties in relation to emotional well-being and mental health difficulties continue to rise. Maxell et al. (2007) reported that 4% of children have a diagnosable emotional disorder and 5% have a diagnosable Conduct Disorder. In 2007, The United Nations Children's Fund (UNICEF)

reported that children and young people in the U.K ranked at the bottom of a league table of 21 economically developed countries on two categories of child well-being related to behaviour and emotional well-being including, namely 'behaviour and risks' and 'family and peer relationships'.

Emotional and behavioural difficulties in childhood have been linked to a range of negative outcomes in both the short and long term. Common to a number of childhood emotional and behavioural difficulties such as Attention Deficit Hyperactivity Disorder, Conduct Disorder and Oppositional Defiant Disorder are difficulties in managing anger (American Psychiatric Association, 1994). Pupils demonstrating difficulties controlling their anger and associated aggressive behaviours are at risk in the short term. For example, they are at risk of exclusion from school (Snyder, Kymissis & Kessler, 1999). In the long term, research has shown that without intervention aggression tends to remain stable over time and can be linked to poor educational attainment, drug abuse, health problems, relationship breakdown and criminal behaviour (Enright & Fitzgibbons, 2000; Pepler & Rubin, 1991; Siegman & Smith, 1994). This highlights the need for interventions to address emotional and behavioural difficulties, in particular problems with anger management, to prevent negative outcomes in childhood, adolescence and later in adult life.

1.2: Improving behaviour and emotional well-being

It is evident that services which work with children need to continue to develop to meet the emotional and mental health needs of these young people. Every Child Matters (2004) outlined the responsibility of public services to work

towards improving outcomes for children and young people in relation to their emotional well-being. It highlights the responsibility of services to enable young people to make a positive contribution to society (which includes supporting young people to prevent them engaging in anti-social or offending behaviours). NICE public health guidance (2008) proposed the following recommendations for primary school aged children: that in addition to the adoption of a 'whole school' approach to children's social and emotional well-being, professionals working within schools, local education authorities and children's services should provide a comprehensive program to develop emotional well-being which should include "integrated activities to support the development of social and emotional skills and well-being" (p12).

Within the local context, this research relates to a number of local priorities linked to the Every Child Matters outcomes. The local children and young people's plan for the area in which this research is based sets out priorities identified for Children's Services which include "improving children's and young people mental health and reduce self harm" (p7), "promoting a safe and positive environment for children and young people" (p7), "reducing absence and exclusions from school" (p8) and "reducing the number of children and young people getting into trouble and support them to make a positive contribution" (p10) (Area 'X' Local Children's Services Partnership, 2008).

A wide range of national programs and interventions have been put in place in education to address difficulties in relation to behaviour and emotional well-being in childhood. More recently, these have included Behaviour and

Education Support Teams (BEST) and Social and Emotional Aspects of Learning (SEAL, DfES, 2005). BEST offer individual pupil, family, group and whole school work, including circle time, parent support groups and guidance for schools on behaviour management. While SEAL is a whole school curriculum aimed at teaching social, emotional and behaviour skills through assemblies, targeted lessons and cross curricular themes (Humphrey at al., 2008).

1.3: Therapy

There is a growing evidence base for therapeutic interventions to meet the emotional and mental health needs of children and young people. The design and implementation of therapeutic interventions, to address such childhood difficulties as anxiety, depression and anger, is becoming increasingly commonplace. Research evidence points to the value of universal approaches, for example whole school programs to develop social and emotional well-being, combined with more targeted interventions such as cognitive behaviour therapy to promote the emotional well-being of children and young people, (Maxwell et al., 2007). Cognitive behaviour therapy is commonly held up to as the 'gold standard' of therapeutic interventions and there is a substantial field of research which supports the use of cognitive behaviour therapy for difficulties with emotional well-being and mental health in adults and is increasingly being used with children.

1.4: The role of the educational psychologist

In recent years there has been a shift in educational psychology practice to re-establish the delivery of therapeutic interventions within educational psychology work (Mackay, 2007). As a result there has been a growing interest in the practice of cognitive behaviour therapy by educational psychologists. A large number of educational psychology services have undertaken whole service cognitive behaviour therapy training (including the employing authority which commissioned the current research). There is increasing interest in educational psychology services to further develop the cognitive behaviour therapy and integrate it into their practice. In addition, cognitive behaviour therapy has become an integral part of many of the initial training courses for trainee educational psychologists.

1.5: This study

The aim of this study is to evaluate the effectiveness of a school based, short term, cognitive behavioural intervention delivered by trainee educational psychologists. The cognitive behavioural program is a group anger management intervention aimed at improving emotional well-being and reducing aggressive behaviour. The study also looks to explore the moderating factors which predict the successful outcomes of such an intervention and sets out to investigate the mediating factors through which cognitive behaviour therapy is effective. The current research will explore the participants' experiences of the intervention, including their views on the factors which impacted on the success of the intervention.

The current research will be presented in the following four chapters. Chapter 2 will present a review of the relevant research literature relating to cognitive behaviour therapy. An outline of the methodology will be presented in Chapter 3, which will detail the design, participants, instruments and procedures used. Chapter 4 will present the results of the current study. A discussion of these results, drawing on the pertinent literature, will be presented in Chapter 5. Finally, Chapter 5 will outline implications for practice, in addition to pointing towards areas for future research and drawing conclusions.

2: Literature review

This chapter will attempt to briefly outline and explain the key psychological concepts utilised within this research including cognitive behaviour therapy, anger, aggression and locus of control. A synthesis of the research within the field of cognitive behaviour therapy will be presented. The review of the literature will include an overview of cognitive behaviour therapy, particularly with children, primarily focusing on the research exploring the effectiveness of cognitive behavioural, anger management group interventions. The review will outline the research investigating factors which mediate and moderate such interventions. There will be a consideration of the research which examines the experiences of CBT participants and their views on the factors which impact on the success of CBT. The literature review will attempt to present a critical analysis of the key research in the field, whilst highlighting the need for the current piece of research. Cognitive behaviour therapy is commonly known by the abbreviated term CBT and for the remainder of this work, the abbreviation CBT will be used.

2.1: Literature search

The search for the current review of literature utilised a number of academic research databases and search engines, including PsycINFO, Psychlit, MEDline and Dissertation Abstracts International, ERIC, Swetswise, Google scholar, and university library catalogues, to gain a comprehensive overview of the literature in the field. The following search terms were used to attempt to ensure a full representation of the body of research into cognitive behavioural, anger management groups for children, including: CBT, cognitive behaviour

therapy, cognitive behavioural therapy, cognitive behavior therapy, and cognitive behavioral therapy, in conjunction with the terms children, adolescents, young people, anger, aggression, Conduct Disorder, aggressive behaviour and behaviour. The next stage of the literature search included an examination of the references of individual sources for further relevant literature. In addition, a literature search forward in time from the relevant articles was performed by undertaking searches for more recent literature which had cited these articles.

2.2: Anger and aggressive behaviour

Anger is one of a range of emotions that may cause problems for a child or young person. Although emotions are not intrinsically problematic, they can become a problem as a result of the behavioural effects. Although anger is a 'normal' emotion it has the capacity to cause aggressive behaviour, if not managed and therefore can cause difficulty for an individual or others. Anger and aggression are related concepts that may exist singularly or concurrently, with anger often being a precursor to aggression (Finch, Saylor & Nelson, 1987). The Oxford English dictionary defines anger as "a strong feeling of annoyance, displeasure, or hostility", whilst aggression is defined as "hostile or violent behaviour or attitudes". Anger is a complex emotional construct which can be seen to include cognitive, physiological and behavioural elements. Kassinove and Sukholdosky (1995) define anger as being a state of negative feeling which is associated with distortions of thoughts, physiological changes and behavioural reactions. The expression of anger can take on a number of

forms such as physical or verbal aggression, self harm or violence towards others.

2.2.1: The impact of anger and aggressive behaviour

The emotion anger is usually categorised as negative, since this emotion plays such an integral part in aggressive, hostile and violent behaviour. While the expression of anger in the form of aggressive behaviour is relatively common in very young children (Larson & Lochman, 2002), as children develop they learn to control their anger. It can therefore become problematic when children are unable to control their anger, and it leads to aggressive behaviours. Such aggressive behaviours may also be attributed to broader mental health difficulties such as Conduct Disorder. The diagnostic criteria outlined by the Diagnostic and Statistical manual of Mental Disorders (DSM – IV) for Conduct Disorder include aggressive or destructive behaviours, deceitfulness and the violation of rules (American Psychiatric Association, 1994).

Anger, aggression and wider behaviour difficulties have received a great deal of attention in research as a result of the costly and pervasive nature of such problems both for schools and the wider community. Anger related difficulties such as aggression, hostility and anti-social behaviour continue to pose problems for schools and the wider community. Children who exhibit aggressive behaviour within the school context pose an increasing concern for schools. If these emotional needs continue to be unmet this will inevitably impact on the learning of the individual child, but also the education of the other children at that school. While many children with such difficulties are referred to

specialist mental health services such as Children and Adolescent Mental Health services, the majority of children never reach specialist services and their needs have to be addressed within mainstream school settings.

Children who experience anger management difficulties are at an increased risk of negative outcomes in childhood and adulthood, including being at risk of exclusion from school (Snyder et al., 1999). Research has highlighted the negative outcomes for children that are excluded from primary school (Parsons, Hayden, Godfrey, Howlett & Marton, 2001) including that 30% of the children excluded from primary school were found to be involved in offending over a 5 year period. Aggressive behaviour in childhood has been widely recognised as relating to aggression, violence and anti-social behaviour in later life (Loeber, 1982, 1990, 1996; Loeber & Hay, 1996) and being at risk of involvement in domestic violence, substance abuse, relationship breakdown and health difficulties (Enright & Fitzgibbons, 2000; Hampton, Oliver & Magarian 2003; Liebsohn, Oetting & Deffenbacher, 1994; Siegman & Smith, 1994).

2.3: Services to meet the mental health needs of children

Despite the growing concern in relation to mental health difficulties experienced by children and young people, including anger and aggression and related difficulties such violent and anti-social behaviour, there is still a lack of access to appropriate services to meet the mental health needs of children and young people. Research indicates that between a fifth and a quarter of children and young people with diagnosable emotional and mental health difficulties had not been seen by Child and Adolescent Mental Health (CAMHS) after a period of 18

months. Between 40-50% of these children and young people had also not been seen by any other service for their mental health needs (Maxwell et al., 2007). This further highlights the need for the development of accessible interventions to meet the mental health needs of children and young people.

2.4: The role of the educational psychologist

Whilst the role of the educational psychologist over the past 20 years has tended to focus on consultative and systemic work within schools, in recent years, educational psychology practice has re-established the delivery of therapeutic interventions within their work (Mackay, 2007). Farrell et al. (2006) found that while the role of the educational psychologist is valued, those questioned "would have welcomed more, particularly in the area of therapy and intervention" (p.9). There has been a continually growing interest in the practice of cognitive behaviour therapy by educational psychologists, particularly since its broad evidence base makes it compatible with evidence-based practice.

2.5: CBT

The underlying assumptions of CBT are that cognitions affect behaviour, cognitions and cognitive processes may be examined and changed and that behaviour can be affected by cognitive change (Dobson & Dozois, 2001). CBT focuses on the promotion of cognitive change, based on the view that cognitive processes are central to the cause of mental health difficulties (Reinecke & Clark, 2004). CBT upholds the idea that behaviour is regulated by the interpretations people make of events rather than the events themselves (Bolton, 2004). The theory behind CBT proposes that for those experiencing

mental health difficulties, their distorted or 'maladaptive' interpretation of events is critical in supporting accompanying negative emotions and problematic behaviours. CBT therefore provides a therapeutic framework for understanding a person's view of events and experiences, and how these cognitions impact on the individual's feelings and behaviours, with a view to helping them change their 'maladaptive' cognitions and replacing them with more adaptive ways of thinking.

2.5.1: Research base for CBT with adults

There is wealth of empirical research indicating the effectiveness of CBT for a wide variety of mental health problems in adulthood. Meta-analyses and systematic reviews of randomized controlled trials have show that CBT is an effective intervention for Post Traumatic Stress Disorder (Bison, Ehlers & Matthews, 2007), schizophrenia (Rathod, Kingdon & Weiden, 2008), suicidal behaviour (Tarrier, Taylor & Gooding, 2008), prevention of relapse in bi-polar disorder (Beynon, Soares-Weiser & Woolacott, 2008), Obsessive Compulsive Disorder (Prazeres, de Souza & Fontenell, 2007), insomnia (Whitworth, Crownover & Nichols 2007), anxiety (Hunot, Churchill, de Silva & Teixeira, 2007) and depression (Barbui, Butler, Cipriani, Geddes & Hatcher, 2007).

Systematic reviews of randomized controlled trials have been highlighted by the government as being the 'gold standard' in the hierarchy of research evidence for treatment effectiveness (Fox, 2003). CBT therefore has a particular strength over other therapeutic interventions in that is has a broader empirical research base evidenced on meta-analyses and systematic reviews of randomized

controlled trials. However, a large number of systematic reviews which indicate the effectiveness of CBT are based on an adult sample rather than adolescents or children. The research for the effectiveness of CBT in children is a more recent development and the number of systematic reviews in children and adolescent mental health is more limited.

2.5.2: Research base for CBT with children

The research base for the evaluation of CBT with children although more comprehensive than for other psychotherapies, is still a recent development, with the first research using randomized controlled trials being reported in the 1990s. Research demonstrates that CBT based interventions have a positive impact on many childhood psychological problems including: bi-polar disorder (Pavuluri et al., 2004); social phobia (Gallagher, Rabian, & McCloskey 2004); Post Traumatic Stress Disorder (Smith et al., 2007); and other emotional and behavioural disorders (Yeo, Gerken, & Ansley, 2005). Systematic reviews of randomized controlled trials have provided evidence for the effectiveness of CBT with emotional and mental health difficulties in children and adolescents. However, these have tended to focus on internalising difficulties such as depression (Compton et al., 2004); Obsessive Compulsive Disorder (O'Kearney, Anstey & von Sanden, 2006) and anxiety (Cartwright-Hatton, Roberts & Prathiba, 2004; Compton et al., 2004; James, Soler & Weatherall, 2005).

2.5.3: CBT for anger and aggressive behaviour

CBT provides a therapeutic framework which enables individuals to examine and replace negative interpretations of situations with more adaptive ways of thinking. Children having difficulties managing their aggressive behaviour tend to interpret neutral cues in the environment as posing a threat. Lochman and Dodge (1994) proposed that children who experience difficulties in terms of social cognition are at risk for developing aggressive behaviour, while Dodge (1980) indicated that children who exhibit high levels of aggressive behaviour have deficits in terms of their social information processing. Kendall and MacDonald (1993) proposed that aggressive children experience cognitive deficiencies and distortions. Dodge, Pettit, McClaskey and Brown (1986) indicate that aggressive children do not use all available information in decision making and tend to attribute others' ambiguous behaviour as negative. It is these cognitive distortions and negative attributions which lead to the negative and aggressive responses. Research suggests deficiencies and distortions in cognitive processing of aggressive children can be addressed by CBT (Kendall & Panichelli-Mindel, 1995). Cognitive behavioural approaches for the management of anger and aggression have been widely studied and validated (Blake & Hamrin, 2007).

2.5.4: Research base for CBT based anger management

CBT based anger management programs for children and young people have been developed from the work of Meichenbaum's (1977) self-talk strategies and Novaco's (1975, 1976) anger management interventions for adults. There is a

growing evidence base for the success of CBT based anger management programs with adults and children, which has been demonstrated through a number of meta-analyses (Beck & Fernandez, 1995; Sukhodolsky et al., 2004; Tafrate, 1995.), although generally there has been a lack of randomised controlled trials to support CBT based anger management, Armelius & Andreassen (2007) has demonstrated the success of CBT with anti-social adolescents living in a residential setting.

2.5.4.1: Meta-analyses of CBT based anger management

An overview and analysis of research provided by meta-analyses does indicate that CBT can significantly impact on anger and aggressive behaviour. However, results from meta-analyses should be treated with caution. Meta-analyses do raise a number of concerns, which need to be addressed, including for example the over inflation of effect sizes, due to published studies being more likely to report significant results than non published studies and results from studies of varying quality may not be comparable. The criteria by which studies are selected should be observed, as many meta-analyses have very stringent conditions which reduce the number of studies included considerably.

A number of meta-analyses investigating the impact of CBT on anger and aggressive behaviour will be presented and evaluated. Beck and Fernandez (1998) included 50 studies based on both adult and child populations which suggest CBT has moderate treatment gains for anger and aggressive behaviour, with a mean effect size of 0.70. The meta-analysis included only 10 studies involving school children and many were faced with limitations. The

studies generally consisted of small sample sizes, relied on one dimension of anger or aggression with 2 of the studies relying on a pre-post design with no control group. Beck and Fernandez (1998) highlighted the need for further 'real world' research which researches anger management in naturalistic settings rather than in controlled laboratory settings.

Sukhodolsky et al. (2004) built further on the meta-analysis of Beck and Fernandez (1998) by investigating the differential effects of different types of CBT for anger related difficulties in children and adolescents. This study suggested that CBT has moderate treatment gains, with the mean effect size 0.67. Sukhodolsky et al. (2004) advanced the investigation of the effectiveness of CBT by exploring moderating factors which impact on the effectiveness of the interventions. Sukhodolsky et al. (2004) included 40 outcomes studies with an equal weighting of published and un-published studies.

Many research studies included in the meta-analysis presented with limitations in terms of the treatment integrity, with 45.1% of studies being rated with poor treatment integrity and 15.7% of studies not reporting treatment integrity at all. The meta-analysis presented with a number of limitations, for example the small number of studies available resulted in difficulties exploring many of the moderating variables and many of the studies included had small sample sizes. Although this meta-analysis goes a step further than Beck and Fernandez (1998) by exploring predicting or moderating variables, it still does not seek to explain the mechanisms by which CBT results in improvements in behaviour related to anger or aggression.

2.5.4.2: CBT based anger management groups

CBT for anger management has tended to be presented as a group intervention rather than individual therapy (McCart, Priester, Davies & Azen 2006). Some research has highlighted that group interventions for problem behaviour can actually have detrimental effects (Dishion & Andrews, 1995; Dishion, McCord & Poulin, 1999). However, other research indicates that if the groups include a mixture of participants, including positive role models, outcomes tend to be more favourable (Feldman, Caplinger & Woodarski 1983). However, reviews of CBT based anger management research have indicated that the success of CBT does not differ dependent on the mode of delivery (individual versus group) (Kendall & Zupan, 1981; Schechtman & Ben-David, 1999). Further arguments can be made for the utilisation of group interventions for anger management. For example, those involved in group CBT are more likely to be able to generalise new skills since they already have had the opportunity to practise these skills with their peers in the group (Bennett & Gibbons, 2000; Dwivedi & Gupta, 2000; Kastner, 1998). Coppock and Dwivedi (1993) indicate that groups run in school for anger management minimise the stress which may be caused by attending an intervention at a clinic.

Research has shown that CBT based group interventions for children can lead to a reduction in aggression and disruptive behaviour as rated by teachers and parents (Kazdin, Esveldt -Dawson, French & Unis, 1987; Nickerson & Coleman 2006; William, Weymouth, Lipman, Mills, & Evans 2004) and improvements of children's self-reports of anger (Sukhodolsky et al., 2004). Although a number of studies has demonstrated that group based CBT can be an effective

intervention for reducing anger and aggression in children aged 7 -11 (Durlak, Fuhrman, & Lampman, 1991; Kazdin, Bass, Siegel & Thomas 1989; Sukhodolsky, Solomon & Perine, 2000; William et al., 2004); the research focusing on pre-adolescent CBT based anger management groups remains limited. In the meta-analysis undertaken by Sukhodolsky et al. (2004), only 10 treatment versus control comparisons which included children younger than 10 years were identified. Furthermore, only a further 16 comparisons with children averaging ages 10-12 were included.

2.6: School based anger management interventions

The research base for school based interventions, for the management of anger and aggressive behaviour remains limited, particularly regarding research undertaken with the U.K school system. In a comprehensive overview of the effectiveness of school based interventions for aggressive and disruptive behaviour, Wilson and Lipsey (2007) analysed a total of 249 experimental and quasi-experimental research studies for their meta-analysis including studies dating as far back as the 1960s. Of the 249 studies which covered a range of psychosocial interventions only one study was based in the U.K, with 90% of the research having been undertaken in the U.S.A. The criteria for including research in the meta-analysis were not overly stringent. The conditions for inclusion were that the research was in the English language, the intervention was school based, at least one dependent variable represented aggressive or disruptive behaviour and studies were either experimental or quasi-experimental design.

Wilson and Lipsey (2007) made a useful comparison of a variety of types of intervention. Results indicated that interventions which were either aimed at the whole school/class or were targeted approaches such as group work, were the most effective interventions. The whole school/class and targeted approaches were both mostly cognitively orientated approaches in this study. Targeted interventions which had a behavioural component produced significantly greater reductions in aggressive and disruptive behaviour. This would indicate support for cognitive behavioural interventions. The research reported larger treatment effects for children deemed as being 'at risk', for both whole school/class and targeted formats. Since many of the studies had missing data (47%), this cannot be regarded as conclusive, particularly as much of the missing data related to information on socio-economic status, one of the factors associated with 'at risk'.

A number of studies provide supporting evidence for the effectiveness of CBT based interventions delivered in schools (Dwivedi & Gupta, 2000; Humphrey & Brooks, 2006; Kaster, 1998; Nickerson, 2004; Squires, 2001). However, many of these studies have been based on very small sample sizes, and have included mainly adolescent males as participants (Dwivedi & Gupta, 2000; Humphrey & Brooks, 2006; Kaster, 1998) and only a small number of studies were based in U.K schools (Dwivedi & Gupta, 2000; Humphrey & Brooks, 2000; Squires, 2001). There is a limited research base exploring the effectiveness of group CBT interventions in schools for anger management with children aged 7-

11 (Sukhodolsky et al., 2004). The research literature based in U.K schools does go some way to highlighting the effectiveness of group CBT for anger management. However, many studies are faced with limitations in their designs, including a failure to include a control group comparison in the design, a lack of reliable measures of behaviour and no inclusion of follow-up measures exploring the maintenance of improvements.

2.7: The intervention used in the current study

The intervention to be utilised within the current study has been widely employed in primary schools with reported successful outcomes. Sharp and Herrick (2000) reported that the intervention had been undertaken by educational psychologists with 45 groups of children, and a total sample of 175 children and that the intervention has been successfully evaluated on both a qualitative and quantitative level. Sharp and Herrick (2000) point to a number of positive changes as a result of participation in the group. These included fewer aggressive outbursts from the children, which led to a reduced risk of being excluded from school, an increased sense of responsibility for their behaviour, identifying connections (described by the authors as 'ah-ha' moments within the sessions and in the broader school context) and changes in staff perceptions of the children.

Although Sharp and Herrick (2000) propose that evaluation of the intervention has demonstrated its success, the authors acknowledge the need to further develop the evaluation. The evidence presented is clearly anecdotal and undoubtedly does not provide adequate verification of the effectiveness of the

intervention. Although Sharp and Herrick (2000) maintain that rating scales were used before and after by the children, parents and teachers, there is no presentation of analysis of the data obtained. Even though Sharp and Herrick (2000) suggested there was some evidence of perceptions of change for some children; however, there are no data to support this suggestion.

2.8: Long term impact of CBT based anger management

Although there is evidence supporting the long term benefits for CBT based interventions for managing anger (Deffenbacher, Dahlen, Lynch, Morris & Gowensmith, 2000; Lochman, 2003; Lochman, Coie, Underwood & Terry, 1993), a large number of studies have not included follow-up data (Lochman, Lampron, Gemer, Harris & Wyckoff, 1989; Kastner, 1998; Sukhodolsky et al., 2000). While research evidence would suggest that positive outcomes are maintained at follow-up, a meta-analysis undertaken by Bennett and Gibbons (2000) found a number of studies indicating that improvements had not been sustained. Previous research has produced inconsistent findings in terms of the long term effects of CBT for anger management with children and young people (Kazdin et al., 1987; Lochman, 1992). This is an area of research which needs further investigation.

2.9: Mediating and moderating factors

Moderators can be described as the "conditions that dictate when a treatment is more or less effective" and mediators as "the mechanisms or processes through which a treatment produces change" (Kendall and Choudhury, 2003, p94). With the growing field of research supporting the effectiveness of CBT interventions

for children, research has turned to the exploration of the mediating and moderating factors which impact on the success of CBT interventions. However, the field of research exploring mediating and moderating factors for CBT based anger management remains somewhat limited and this highlights the need for further investigation of such factors (Sukhodolsky et al., 2004).

2.9.1: Moderating factors for CBT

A number of moderating factors including individual child and family characteristics and wider contextual factors have been shown to impact on the success of CBT based anger management interventions. Previous research has indicated that individual characteristics such as age (Durlak, Fuhrman & Lampman, 1991), academic performance (Kazdin and Crowley, 1997), gender (Kazdin & Crowley, 1997), problem severity (Durlak, Wells, Cotton, & Johnson, 1995) and the number of symptoms (Kazdin & Crowley, 1997) act as moderating factors for the success of CBT based anger management.

2.9.1.1: Age

Research has indicated that older children are more likely to benefit from CBT based interventions than younger children (Bennett & Gibbons, 2000; Durlak et al., 1991). This has been accounted for by older children's higher levels of cognitive functioning. However, in a study exploring cognitive and academic functioning as moderators for treatment outcome, Kazdin and Crowley, (1997) found that while reading achievement was a significant predictor of treatment outcomes, once family and contextual factors were accounted for, reading achievement no longer predicted treatment outcome. Higher IQ scores only

predicted a more positive outcome for girls and not boys. Kazdin and Crowley (1997) found the effect of age on outcome was weak and inconsistent across all measures. In a meta-analysis of psychotherapy for children and adolescents Weisz, Weiss, Alicke and Klotz, (1987) found that therapy proved more effective for children than adolescents, particularly when the therapy was undertaken by a para-professional (parents or teachers) or graduate students. Sukhodolsky et al. (2004) found no significant relationship between age and overall effect size. The effects of age as a moderating variable remain inconclusive.

2.9.1.2: Gender

Gender has been found to act as a moderating factor by several studies. Research exploring the effect of gender as a moderator of the effect of CBT on anger reduction indicates that females benefit more from CBT based interventions in comparison to males (Kazdin & Crowley, 1997; Sukhodolsky et al., 2004). Bennett and Gibbons (2000) however identified that many studies do not include girls within their samples and of those that do, the sample of girls is often too small to examine gender as a moderator.

2.9.1.3: Family stress

Sukhodolsky et al. (2004) highlight the need to explore family stress as a moderator amongst other contextual variables for the success of CBT based anger management interventions. A number of contextual factors can be seen to impact on children's behaviour, the extent to which children demonstrate improvements after therapeutic intervention and the maintenance of these improvements at follow-up. The contextual factors identified include socio-

economic disadvantage, conflict and violence between family members, parental mental health difficulties, high stress levels and lack of social support (Maughan, 2001; Stoff, Breiling & Master, 1997). Studies exploring the effectiveness of parenting interventions for behavioural and emotional problems highlight that socio-economic disadvantage is a predictor of poor treatment outcome (Dumas & Wahler, 1983; Webster-Stratton & Hammond, 1990). Similar results have been indicated for studies utilising CBT (Kazdin & Crowley, 1997). Research indicates that high levels of life stress, impact on the success of CBT and other interventions for aggressive behaviour (Kazdin, 1995; Webster-Stratton & Hammond, 1990). However, the exploration of whether the number of stressful life events experienced by a family acts as a moderator for CBT based anger management requires further study.

2.9.1.4: Parenting stress

The level of stress experienced by the parents of children demonstrating aggressive behaviour can impact on the success of CBT based intervention for anger management in children. Research indicates that parental psychological distress, poor child rearing practices, lack of positive family relationships, limited encouragement of personal development by the family and maternal social isolation are all factors related to poor outcomes in interventions to reduce emotional and behavioural problems such as CBT (Dumas & Wahler, 1983; Kazdin, 1993; Kazdin, 1995; Kazdin & Crowley, 1997; Webster-Stratton & Hammond, 1990).

Kazdin and Whitley (2003) identify that the stress experienced by the parents of aggressive children is entwined with the occurrence and continuity of the behaviour. Parental stress influences methods of discipline, which can inadvertently reinforce negative behaviour (Patterson, Reid & Dishion, 1992). Parental stress can lead to increased irritability and therefore the maintenance of negative communication (Patterson, 1988). Clear links can be made between parental stress and parents' ability to manage aggressive behaviour in their child. It is therefore proposed that the amount of stress experienced in the parent – child system will be related to the parents' ability to support their child in the CBT based intervention and the use of anger management strategies. Hemphill and Littlefield (2006) identified a positive parent-child interaction as predictive of greater improvement post therapeutic intervention for children with emotional and behavioural difficulties. The effect of parenting stress as a moderator for CBT based anger management remains largely unexplored.

2.9.2: Mediating factors for CBT

The mechanisms through which CBT produces successful outcomes have been an area of research somewhat neglected when investigating the effectiveness of CBT. Weersing and Weisz (2002) undertook a review of randomized controlled trials of psychotherapy for children and young people. The review looked at the mechanisms through which CBT is successful for anxiety and phobias, depression and treatments for disruptive youths. Weersing and Weisz (2002) indicated that self-talk acted as a mediator for the successful outcomes for anxiety. However, the review of CBT for depression and disruptive behaviour, including anger management interventions, did not find evidence for

other mediating factors. Whilst many of the studies collected data about possible mediating factors for psychotherapy, mediating analyses were not actually undertaken, apart from cognitive distortions for depression (Kolko, Brent, Baugher, Bridge & Birmaher, 2002) and no evidence for cognitive distortions acting as a mediator was found.

Weersing and Weisz (2002) highlighted that research exploring the mechanisms which underpin psychotherapy is less complete for direct interventions with children for disruptive behaviour than for other difficulties and for programs aimed at parents. Possible mediators of CBT based interventions for anger management have included biased perception of social cues (Dodge & Crick, 1990), attributional processes (Hudley & Graham, 1993) and social problem solving skills (Lochman, White & Wayland, 1991). Beck and Fernandez (1998) suggested the following possible mediators for further research: self-efficacy, locus of control, and impulsivity versus reflexivity.

2.9.2.1: Locus of control

The concept 'locus of control' originated from the work of Rotter (1954) who proposed that people vary in the degree to which they presume their behaviour will lead to particular reinforcements. Therefore individuals see themselves as being in control of reinforcements and having 'internal locus of control' or that the control of reinforcements lies beyond their control and having 'external locus of control'. Lefcourt (1976) defined perceived locus of control as: "Perceived control is defined as a generalised expectancy for internal as opposed to external control of reinforcements" (Lefcourt 1976, p27). Connell (1985)

suggested a developmental framework of perceptions of control for children which identifies 3 dimensions of control i) internal control ii) external or control of powerful others and iii) unknown control. This framework allows for children to attribute experiences to the unknown, in addition to internal and external loci of control.

A number of studies have identified that external locus of control is linked to anger and aggressive behaviour. Perkins (2004) found that children with an internal locus of control were less aggressive than those with external locus of control. Oesterman et al. (1997) found aggression correlated significantly with external locus of control, particularly physical aggression. Research has indicated that children identified as experiencing Conduct Disorder had a more external locus of control than peers who had not been identified as experiencing Conduct Disorder (Powell, 2003; Powell & Rosen, 1999).

Research has indicated that cognitive behavioural interventions can have an impact on locus of control. In research in adults, group CBT for chronic pain resulted in a positive change in locus of control (de Boer & Versteegen, 2006). CBT for agoraphobia produced a significant decrease in external attributions to powerful others (Kasvikis, Scaloubaca & Mitskidou, 2003). In research with children, March, Amaya–Jackson and Schulte (1998) found that although locus of control did not change after CBT intervention for PTSD, there was a significant change at follow-up. Locus of control changed at follow-up from external to strongly internal. Research exploring locus of control as a mediating factor for the success of CBT interventions has produced inconclusive results.

Backenstrass et al. (2006) found that locus of control did not act as a mediator for CBT treating depression.

2.10: Participants' views of CBT

The UN Convention on the Rights of the Child includes statements which indicate that children's views should be sought in regards to issues that affect them. Article 12 states "parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child." (Office of the United Nations High Commissioner for Human Rights, 1990). There has been increasing focus on the importance of eliciting the views of the children within the practice of educational psychology and within the field of research with children.

Research investigating the effectiveness of CBT has tended to utilise uniquely quantitative methods, with the highest status being given to randomised controlled trials. Little consideration has been given to the participants' experiences of therapeutic interventions and there has been limited exploration of the participants' views of CBT. Many studies do utilise self-report measures, however, these focus almost entirely on the measurement of treatment outcomes in the form of structured questionnaires to measure symptoms, behaviours or other psychological constructs.

Historically in CBT research, participants have been considered as objects within the design, rather than active participants who can make their own

unique contribution to the research. It could be argued that the subjective views of participants have no place in the measurement of outcomes. The author would maintain that, it is not only pertinent to explore the experiences of the people engaged in the intervention but essential. Research needs to be designed to enable participants to communicate their view of the intervention and to actively contribute to the research. Although there is a tendency to rely on standardised self-reports measures as reliable sources of outcome data, there is evidence to support semi-structured interviews as reliable method of obtaining self-report of behaviour problems by children (Edwards, Schulz, & Long, 1995). There is even a suggestion that such interviews may provide more accurate information than such standardised measures of behaviour (Nickerson & Coleman, 2006).

The inclusion of semi-structured interviews would therefore not only provide an insight to participant's views of the intervention, but also provide additional outcome information which could supplement quantitative data sources. Gaining participants' views of CBT through interviews may have an additional benefit, since it may highlight further areas for potential study.

2.10.1: Research exploring participants' views of CBT

This section will provide a brief summary of the research which has sought to explore the views of participants engaged in CBT based group interventions for anger management. This research has tended to be faced with a number of limitations, including small sample sizes, a lack of control group and failure to collect follow-up data.

In a study based in U.S.A, Nickerson and Coleman (2006) utilised brief interviews post intervention with children aged 10-12. Information gained from the pupil interviews included reports that they had learned to control their anger better, that there had been changes in their behaviour, that they liked the people and the interactions within the group, as well as specific content within the group such as role-play.

Humphrey and Brooks (2006) undertook a mixed methods research study to investigate a CBT group intervention for young people aged 13-14, which identified the following qualitative themes from the qualitative interviews: notions of power in the classroom, treatment readiness and the importance of sharing experiences including thoughts and feelings with others.

A number of research projects have been undertaken by practising educational psychologists in the U.K. Dwivedi and Gupta (2000) undertook interviews with the participants of a school based anger management group delivered to young people aged 13-14 and found that students commented positively on the sessions and indicated they had gained from listening to other pupils. The pupils had increased awareness of the triggers for their anger, were more able to talk in a group and reported a reduction in their aggressive behaviour. Some students stated that they would have preferred individual rather than group sessions.

In another study undertaken by an educational psychologist, Squires (2001) used open ended questions to explore changes in self perceptions and improvement in classroom behaviour. The research report presented example quotations, for example "I've not beat up as many people" and "it's helped me learn not to shout out" (Squires, 2001, p 323), however no further attempt was made to interpret the comments made by pupils or to draw out themes.

2.11: Summary

The review of the literature relating to CBT interventions for anger management demonstrates the need for further study. There is a need to investigate the effectiveness of a CBT intervention which is delivered on a group basis within a school setting. The literature review has pointed to the lack of research that explores the use of CBT, which is short term, aimed at pre-adolescent children (namely children age 7-11) or is U.K based. The need to address a number of limitations in the current research has been highlighted including: the inclusion of a control group, the collection of follow-up data and an increased sample size. Further gaps in the research have been identified, indicating that there is a lack of conclusive evidence to support those factors which predict the success of such a CBT based intervention and the mechanisms through which it is successful. There is a lack of research which aims to explore the views and experiences of those participants engaged in the research itself. Therefore the current study plans to address these issues. Chapter 3 will present an account of the methodology to answer the following research questions including a description of the design, the measures and the analysis used and to information relating to the participants.

2.12: Research questions

Central question

Is a CBT group intervention effective for anger management in key stage 2 pupils?

Supplementary questions:

Supplementary question 1:

Can CBT based anger management have a long term impact on children's anger and aggressive behaviour (at a 3 month follow-up)?

Supplementary question 2:

Is the success of the group intervention moderated by background factors such as age, gender, socio-economic status, levels of family stress, and levels of parenting stress?

Supplementary question 3:

Is the intervention mediated by locus of control?

Supplementary question 4:

What factors impact on the success of the intervention from the views of the participants?

3: Methodology

This chapter aims to outline the methodology of the current research and includes a description of the research participants, the procedure and an outline of the data collected. An overview of the quantitative measures and the semi-structured interviews undertaken will be presented, in addition to a summary of the analysis of the research data. There will be a review of the pertinent ethical issues and research design constraints posed by the current research.

The current study seeks to build on and address a number of the limitations of previous research outlined in the literature review through the use of a mixed methodological design. Quantitative research has tended to focus on the study of outcomes, while qualitative research enables an in-depth exploration of the process. The adoption of a mixed methods approach will allow an investigation of both the process and the outcomes of a CBT intervention.

The research methodology adopted will explore the effectiveness of a CBT intervention for anger management comparing experimental and control conditions on a measure of emotional well-being and behaviour. Moderating and mediating factors will be explored using quantitative questionnaires. Follow-up data will be collected, to investigate whether improvements have been sustained. The use of semi-structured interviews will enable an in-depth exploration of the process of the intervention, from the viewpoints of the participants, including the factors which impact on its success.

A CBT intervention for anger management designed specifically for group use in schools with children aged 7-11 was used. The CBT intervention was run by 3 trainee educational psychologists, including the author, as part of 3 distinct doctoral research projects. Measures for all three doctoral research projects were collected by each of the three trainee educational psychologists and then the relevant data were passed to the individual trainee for their own piece of research. The description presented here, details the methodology of the current research undertaken by the author.

3.1: Design

The current research adopts a repeated measures, between subjects design to explore the effectiveness of a CBT based intervention, collecting questionnaire data pre and post intervention for experimental and wait-list control groups and follow-up data for the experimental condition. The study utilises a mixed methods design, supplementing quantitative data from questionnaires with semi-structured interviews post intervention with a subset of children, parents and group facilitators. A CBT based anger management intervention, Primary Anger Management, key stage 2 version: Learning how to deal with out angry feelings (Woodcock, 2003) was delivered for the purpose of this research. The program took place over a 6 week period and was delivered to groups of children within the school setting.

3.2: Ethical issues

Ethical approval for the study was granted from the Institute of Education to the author prior to the commencement of the research. The author submitted an

ethical approval form outlining the ethical issues raised by the research project and how these would be addressed (see appendices). Ethical approval was also granted prior to commencement of the research by University College London and The University of East London because of the proposed research projects being undertaken by the two other trainee educational psychologists who were collaborating in running the intervention groups.

The following ethical issues, including informed consent, the right to refuse or withdraw, confidentiality, the possibility of a child becoming upset by the group discussion, continued support after the program and the use of a control group (please see appendices for copies of information sheets and consent forms), were considered. The use of wait-list control group has been adopted to address ethical issues regarding the use of a control group. A wait-list control group acts as a control group whilst the experimental group is receiving the intervention, the wait-list control group then receives the intervention at a later date. This enables the use of a control group whilst still offering the program to all children that need it.

Issues relating to the possibility of the children becoming upset by the group were addressed through the attendance of an additional school facilitator who was also available in school outside of the group sessions. Therefore if any child became upset, they were able to leave the group and talk with the co-facilitator. This provided opportunities for the children to discuss the group and anything that may be upsetting them throughout the week. Issues regarding continuity of intervention after the program had finished were addressed

through systemic work with the school as part of the program. This included schools being given a twilight session which introduced the ideas behind the program to the school staff. Since a member of school staff was present at intervention sessions, this allowed the school to continue with aspects of the program once the intervention had finished. Facilitators were asked to organise further sessions with the groups after the intervention in order to support the children further. Schools were directed to the published anger management materials by Faupel, Herrick and Sharp (1998).

3.3: Participants

12 schools were involved in the study. Schools were located within 3 'areas' of a large county, with 4 schools from each area. Schools were identified by the trainee educational psychologist working within that area, as being a school that would benefit from being offered such an intervention. Members of the Senior Management Team in these identified schools were approached and the outline of the research project was explained at the outset. The Senior Manager (often the Head Teacher) then decided whether the school wanted to take part in the research project. Senior managers were asked to identify children aged 7-11 to take part in the intervention.

Schools nominated individuals who were experiencing difficulties in managing their anger. Schools were asked not to include children on the Autistic Spectrum or those who were already receiving intervention for their anger management difficulties. Schools were asked not to include children who were already in receipt of interventions targeted specifically at anger management, to

ensure that any improvement seen post intervention was as a result of the current intervention and not as a result of another intervention they may be receiving. It is worth noting that the schools involved did not have similar interventions running at that time and this therefore did not result in a large number of children being excluded. Schools were asked not to include children with a diagnosis of Autistic Spectrum Disorder, since research evidence has indicated that CBT programmes delivered to children with such difficulties need to be adapted to meet their specific needs (Sofronoff, Attwood, Hinton & Levin, 2007).

It was requested that schools identified a range of children in terms of the extent of the children's difficulties. It was hoped that a diverse group would contain children who could act as 'role models' within the groups. The choice about who took part in the groups was made by the senior managers in the schools, in consultation with class teachers. The groups comprised between 4 and 7 pupils each.

It appeared that the children chosen for the group did have a significant level of difficulty with a mean score for total SDQ at time 1 being 16.67, which is above the clinical cut off point of 16 for 'abnormal' scores (SDQ scores at baseline for each school can be found in appendix 31). The standard deviation of 6.29 indicated a spread of scores, which suggests there was a range of level of need as requested. While a number of children were not on the special educational needs register (27.5%), it would not be not expected that all of the children chosen for the groups would be, as this is a register of educational needs. The

children's anger management difficulties would have to significantly impact on their learning and indeed their academic progress to be placed on this register

In all, 70 participants took part in the CBT based anger management intervention. Key demographics were collated in respect to the children taking part in the intervention and are as follows: 77% of participants were boys; 96% spoke English as their first language; 90% of the children were identified as white, 7% as dual heritage and 3% as being of Asian origin; 27.5% of children were not on the special educational needs register; 3% of children were looked after children; and 20% of the children were in receipt of free school meals. Demographic information for participants was comparable across both the experimental and wait-list control groups (full demographic information for the pupils and schools can be found in appendices 29 and 30).

Key demographic information was collated for the schools involved in the research project. 10 of the schools were primary schools, 1 was a middle school and 1 was a junior school. The number of children on roll ranged from 256 to 686. The mean score for the Index of Multiple Deprivation for the areas within which the schools were situated was 0.16 with a range of 0.06 to 0.30 and a standard deviation of 0.08. The mean Index of Multiple Deprivation score differed significantly ($t = 2.509$, $df = 68$, $p = <0.05$) between the schools in the experimental and wait-list control groups, with a mean of 0.18 for the experimental group and 0.13 for the wait-list control. Higher scores on this index highlight worse deprivation.

The schools in the experimental and wait-list control groups differed significantly on key stage 2 English, Maths and Science SATS results (for English t = 2.78, df=58, p=<0.01; for Maths t = 3.659, df = 62, p = <0.001; and for Science t = 6.588, df = 62, p= < 0.000) with the experimental group having a mean of 63.94% of children reaching level 4 for English compared to a mean of 73.44% for the wait-list control schools. A mean of 59.23% for Maths for the experimental group compared to the mean of 72% for the wait-list control and a mean of 65.37% for Science for the experimental schools compared to a mean of 86.45% for the wait-list control schools. The results suggest that the experimental schools achieved lower attainments across academic subjects in comparison to the wait-list control schools.

3.4: Procedure

The individuals identified by the school as being part of the proposed anger management groups were pre-screened using the Strengths and Difficulties Questionnaire (SDQ). An average score for SDQs at pre-screening was calculated for each school. Within each of the 3 areas, the 2 schools with the highest mean scores were identified and the 2 schools with the lowest mean scores on the SDQ at pre-screening were identified. Within each area, one of the 2 schools with the higher mean scores was allocated to the experimental condition and the other to the wait-list control condition by flipping a coin. The same was then done with the 2 schools with the lower mean SDQ scores at pre-screening in each area. Within the limits imposed by groups having to be matched within the 3 areas of the county, this procedure was an attempt to match the schools on SDQ scores in experimental and control conditions. This

process was an attempt to ensure that both the experimental and control conditions had children with similar levels of difficulties. In all, 35 children from 6 schools were allocated to the experimental condition and 35 children from the other 6 schools were allocated to the wait-list control condition.

The central research question investigating the intervention's effectiveness was measured using quantitative questionnaires, utilising the Strengths and Difficulties Questionnaires to measure changes in children's emotional well-being and behaviour including aggressive behaviour. The supplementary research questions investigating the impact of mediating and moderating factors, for example locus of control, parenting stress, and family stress on the intervention's effectiveness were measured using quantitative questionnaires (including the Multidimensional Measure of Children's Perception of Control, the Adverse Life Events and Parenting Stress Index questionnaires in conjunction with the Strengths and Difficulties Questionnaire) and demographic information collected from the schools. Questionnaires were administered at 3 time points. Time 1 is the pre-measure and Time 2 is the post-measure (for the experimental group versus control design, Time 2 also served as a pre-measure for the wait-list control group). Time 3 is the follow-up measure (for the experimental group and also served as post intervention for the wait-list control group). A time line of the delivery of questionnaires and the intervention can be seen in the following table:

Table 1: Delivery of measures and intervention to experimental and wait-list control conditions.

	Experimental condition	Wait-list control condition
Pre-screening questionnaires	x	x
Questionnaires (Time 1)	x	x
CBT session 1	x	
CBT session 2	x	
CBT session 3	x	
CBT session 4	x	
CBT session 5	x	
CBT session 6	x	
Questionnaires (Time 2)	x	x
Interviews	x	
CBT session 1		x
CBT session 2		x
CBT session 3		x
CBT session 4		x
CBT session 5		x
CBT session 6		x
Questionnaires (Time 3)	x	x
Interviews		x

Information sheets were given to parents and children prior to seeking written consent from parents for their child's participation in the CBT intervention and the research project (please see appendices for information sheets and consent forms). Oral assent was sought from the children. Both parents and pupils were informed of the voluntary nature of participation at the outset of the project and that it would be possible for the children to withdraw at any time without negative consequences. During the administration of the questionnaires all participants were further reminded that their participation was voluntary, that they could stop answering questionnaires at any time and they could refuse to answer any questions. It was explained to participants that all their answers would remain confidential, would not be shared with anyone apart from the other trainee educational psychologists and that information from questionnaires would be anonymised. All questions on the measures were read to children to ensure they were able to answer the questions irrespective of their reading ability. Measures were delivered to the participants in each of the 3 areas of the county by the trainee educational psychologist working within that area.

Prior to the commencement of the program information sessions were run for parents within the school, and for staff at a school staff meeting. Home visits were offered to those parents unable to attend the information session in school. The parents and school staff information sessions lasted approximately 30 minutes each and included an explanation of the psychological theory underlying the program and an outline of the sessions. The information sessions were voluntary for parents and not all parents agreed to attend.

The groups were run by three trainee educational psychologists. The groups were run in 2 experimental and 2 wait-list control schools by each of the 3 trainee educational psychologists, in the area in which the trainee educational psychologist was based. Each of the trainee educational psychologists had a similar level of experience with CBT at the outset of the program, having attended CBT training as part of the Doctorate in Educational and Child Psychology and having used CBT with individual children within the educational psychology service. In addition to the trainee educational psychologist, a school staff member assisted in the facilitation of the groups. These school staff members included: SENCOs, teaching assistants and family liaison officers. Fidelity of adherence to the program by the trainee educational psychologist facilitators was rated by the supporting facilitator on a weekly basis on a scale of 1 – 5, with 1 being "not at all like the program" and 5 being "exactly like the program", an average rating was taken across the 6 sessions for the facilitators adherence to the program manual. Facilitators showed good adherence to the program with the average fidelity score being 4.77, with a range of scores from 4.33 to 5.00 and a standard deviation of 0.22.

The experimental groups were run in the spring term of 2008 and the wait-list control groups were run in the summer term of 2008. The intervention ran for 6 weeks, with one 40 minute session each week. The intervention took place in school hours and children were withdrawn from their lessons. Each session ran for 30 minutes, with 10 minutes for refreshments at the end of the session. The intervention program is based on "Primary Anger Management - key stage 2

version: Learning how to deal with angry feelings" (Woodcock, 2003) and based on the Southampton Anger Management model by Faupel et al. (1998). The program consists of the following 6 sessions:

- Session 1: Getting to know each other.
- Session 2: What things make us angry?
- Session 3: Getting angry.
- Session 4: Calming down – thinking differently.
- Session 5: Calming down – putting out the fuse.
- Session 6: Using calming down ideas.

A more detailed outline of the sessions can be found in the appendix 28.

The program takes a cognitive behavioural approach based on the assumption that cognitions affect behaviour and that cognitive processes may be examined and altered. This program aims to enable children to make links between their thoughts, feelings and behaviour, to identify negative cognitions and explore different interpretations of events. The key components of the intervention were cognitive, behavioural and physiological aspects of anger, cognitive and behavioural techniques to manage anger, and using solution-focused techniques to assist the utilization of these techniques. The sessions included individual, paired and group discussions; games; exercises and role-play. The organisation and subject matter of the anger management program is typical of CBT based anger management programs (Deffenbacher, 1999; Sukhodolsky et al., 2004).

3.5: Instruments

3.5.1: Strengths and Difficulties Questionnaire

The Strengths and Difficulties Questionnaire (Goodman, 1997) is a 25 item questionnaire designed to assess the following 5 areas: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behaviour. In addition the subscales can be added together to create a total difficulties score, with the exception of the pro-social subscale which is a measure of positive behaviour such as sharing and being considerate of others feelings. Teachers are requested to consider a number of behavioural descriptors such as "Often has temper tantrums or hot temper" and "Constantly fidgeting or squirming" and rate each "not true", "somewhat true" or "certainly true". The measure demonstrates both predictive and concurrent validity (Goodman, 1997). The SDQ has been shown to correlate highly with both the Child Behaviour Checklist (CBCL) and the Rutter questionnaires, both of which have well evidenced validity and reliability. The SDQ was undertaken by class teachers at times 1, 2 and 3. Teachers were chosen to complete the questionnaire, since the program was being run in schools, the research aimed to measure behavioural changes in the school setting. Since the study is naturalistic, the teachers asked to complete the questionnaires were aware of the child's status as an 'experimental' or 'wait-list control' participant. However attempts were made to minimise levels of teacher bias when completing these questionnaires, by ensuring that no teachers completing the questionnaires were involved in the delivery of the intervention, this included not participating in

the facilitation of the groups or having regular contact with the trainee educational psychologist in school. The questionnaires were completed by 40 teachers in total. The questionnaire was not completed by the pupils themselves, since the SDQ self report measure has been designed for 11-16 year olds and psychometric data is not available for younger children in the 7-10 years old age group. While a collection of parental SDQ data would have added information about any behavioural changes in the home setting, it was not feasible to collect data at all 3 time points from the parents, due to lack of parental participation in the research project.

3.5.2: Parenting Stress Index (short form)

The Parenting Stress Index (PSI) (short form) (Abidin, 1995) is a 36 item questionnaire designed to assess stress in the parent-child system and consists of 3 scales: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child, as well as providing a total stress score. Each scale therefore consists of 12 statements which parents have to rate "Strongly Disagree", "Agree", "Not Sure", "Disagree", and "Strongly Agree". Items include such statements as "I often have the feeling I cannot handle things very well" and "My child rarely does things for me that make me feel good". The PSI (long form) has demonstrated a good validity and reliability (Loyd & Abidin, 1985). The PSI (short form) has demonstrated good internal consistency (Waisbren, Rones, Read, Marsden & Levy, 2004) and has been show to correlate highly with the long form PSI. The PSI was given to parents before the intervention at the parent information session. Therefore it was only administered to those parents that attended the information session. It was not possible to utilise the PSI data,

due to the large number of questionnaires which were deemed to have been answered defensively (as described by the PSI scoring).

3.5.3: Multidimensional Measure of Children's Perception of Control

Multidimensional Measure of Children's Perceptions of Control (MMCPC) (Connell, 1985) is a 48 item questionnaire designed to assess children's perceptions of control, looking at 3 areas of control: internal, powerful others and unknown. It categorises these into 4 behavioural domains of cognitive, social, physical and general. Children are asked to consider statements which are about the control of everyday situations, for example, "When I get a good grade in school, I usually don't understand why I did so well", and the children have to rate each statement "very true", "sort of true", "not very true", and "not true at all".

The MMCPC demonstrates good internal and test re-test reliability and internal consistency comparing favourably with other measures of locus of control (e.g. Crandall, Katkovsky & Crandall, 1965; Nowicki & Strickland, 1973). The MMCPC demonstrates good predictive validity (Connell & Tero, 1982) and compares favourably with Nowicki and Strickland's (1973) measure of locus of control in terms of validity. The MMCPC is undertaken by all children at times 1, 2 and 3.

3.5.4: Family stress

Family stress was measured with the Adverse Life Events questionnaire (Tiet et al, 1998) which is a 25 item questionnaire designed to measure adversity and

lists statements which describe negative events that the individual has no control over, for example "someone in family died" and "saw a crime or accident". The Adverse Life Events questionnaire is an adaptation of the Life Events Checklist (Brand & Johnson, 1982; Coddington, 1972a, b), which has demonstrated validity and test re-test reliability (Brand & Johnson, 1982). The Adverse Life Events questionnaire was administered to the children in 2 formats. At time point 1, the children were asked to answer "yes" or "no" to whether they had experienced any of these events before the last year and to answer "yes" or "no" to whether they had experienced any of these events in the last year. At time point 2 and 3 the children are asked to complete an edited version, in which they were asked if they had experienced any of the events since the last time they had been asked.

3.6: Demographic information

The following information was sought about the individual pupils:

- Year group.
- Gender.
- Ethnicity.
- Primary Language.
- Socio-economic status (measured by free school meals).
- Attainment levels in Maths, English and Science.

The following information was sought about the schools:

- Location of the school (postcode).
- Index of Multiple Deprivation score.

- Number of pupils on roll.
- Type of school (primary, junior or middle)
- % level 4 Maths, English and Science.

Please see appendices 29 and 30 for tables containing a summary of the demographic information for pupils and schools respectively.

3.7: Interviews

Interviews have been undertaken by the author with a sample of pupils, parents and group facilitators involved in the intervention. Qualitative interviews were utilised to explore the views of the participants in relation to the intervention. The interviews took a semi-structured format, which allowed more in depth information to be gathered which would not have been obtained by quantitative methods alone. The semi-structured nature of the interview enabled flexible use of questioning which meant participants' responses could be followed up with further questioning. Therefore themes covered in the interview were not limited to the pre-identified themes. The focus of the interviews was to further investigate whether the intervention had been successful and the factors which impacted on the success of the intervention. The following themes had been identified in the literature and guided a number of questions on the interview schedules: treatment readiness and the importance of sharing thoughts, feelings and experiences with others (Humphrey & Brook, 2006).

The views of a sub-sample of children engaged in the program were sought through the interviews and a number of interviews with facilitators and parents were undertaken to explore alternative perspectives. There were 3 different

interview schedules designed specifically for the children, facilitators and parents (see appendices for interview schedules). Interviews were undertaken with children, parents and facilitators in an attempt to gain a triangulation of views on what factors impeded and facilitated the success of the groups. The 3 interview schedules were designed to include common themes, but with each being tailored to the role of the interviewee. Interviews were digitally recorded and then transcribed to aid thorough analysis (please see appendices for examples of interview transcripts). Participants were asked for permission to be recorded and were informed that recordings would be destroyed after transcription.

Participation in the interview was voluntary and participants were given the opportunity to refuse involvement and to stop the interview process at any time. An information sheet was given to the participants prior to the interview and consent was sought prior to the interviews taking place. All participants were informed that the interviews would remain confidential and would be anonymised to further protect their confidentiality.

3.7.1: Children

21 children agreed to be interviewed. This included 10 children from the experimental condition of the anger management program and 11 children from the wait-list control condition. All children in the author's groups were approached to be interviewed and of the 22 children asked, only 1 child declined to participate. The children were drawn from 4 schools, with 5 children per school being interviewed from schools E3, E4 and W3, and 6 children being

interviewed from W4. The decision was undertaken to interview children only from the author's intervention groups, to ensure that the children felt comfortable being interviewed. The interviews were undertaken by the author, who the children already knew. The children from the groups in the other 8 schools were not approached for interviews. The geographical distance between schools also played a part in this decision, as it was not practical for the author to travel to the other schools which were based in other parts of the county.

Preliminary analysis from the interviews with the children from the experimental condition, led to further development of the interview schedule for the interviews with the children in the wait-list control condition. Emerging themes from the initial interviews with the children from the experimental condition were included into the semi-structured interview schedules for the interviews with the children from the wait-list control condition. The interviews took place in the week following the end of the last session. The interviews were administered in school on an individual basis in a quiet and private room. The children were read an information and assent sheet prior to the interview giving them an opportunity to decline participation. The interviews with the children lasted approximately 5 – 10 minutes.

3.7.2: Facilitators

4 facilitators consented to take part in the interviews. The facilitators included trainee educational psychologists, a teaching assistant (T.A) and a family liaison officer (FLO). The interviews took place in the month following the last session

of the group. The facilitators were given information and consent forms (see appendices) prior to the interview giving them an opportunity to decline participation. The interviews lasted between 20 and 30 minutes.

3.7.3: Parents

4 parents consented to take part in the interviews, 3 parents of children from the experimental condition and 1 parent of a child from the wait-list control condition. The interviews took place in the month following the last session of the group. Parents were asked whether their child had spoken to them about the group, prior to being invited for interview. The parents were given information and consent forms (see appendices) prior to the interview giving them an opportunity to decline participation. The interviews lasted between 10 and 15 minutes.

3.8: Analysis

Outcomes from repeated SDQ questionnaires and demographic information collected from schools, in addition to data from measures of potential moderating and mediating factors were entered into SPSS for quantitative analysis. The data were analysed by multiple regression procedures. The audio-taped interviews were transcribed in full and then entered into NVivo for qualitative analysis.

The qualitative data were analysed using thematic analysis using the framework described by Braun and Clarke (2006) who clearly identify a structured process for thematic analysis. This includes the following 6 phases: familiarising self with

data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report. The thematic analysis took a 'theoretical' approach as the analysis was driven by the researcher's specific interest in answering the research questions "Is a CBT group intervention effective for anger management in key stage 2 pupils?" and "What factors impact on the success of the intervention?". The thematic analysis also took a semantic approach, whereby the themes were identified from the surface meaning of the data across the data set.

Interview data were initially coded by line, whereby a sentence or paragraph was given a code or a number of codes, before grouping initial codes together in broader themes and then reviewing and refining these themes further into overarching superordinate themes which included subordinate themes and sub-themes. Refinement of the analysis was guided by the research questions to inform decisions about initial codes, interview content and which themes were excluded from this report. The last stage of the analysis included selecting appropriate example quotations to be presented. Through the use of NVivo, quantitative data were indexed, so that it was possible to identify whether themes could be attributed to children within the wait-list control or the experimental conditions. A sub-sample of 10% of the interviews was double coded by another trainee educational psychologist to ensure coder reliability. Coding demonstrated good reliability and inter-rater reliability was 93% (please see appendices for a description of the process of inter-rater reliability).

3.9: Research design constraints

The current design presented a number of challenges. As the study involved the delivery of 2 series of the CBT intervention, it was not possible to spend an extended period in the planning stages of the research and the intervention, due to the time constraints imposed by school terms and university deadlines. Therefore the responsibility of choosing the participants was given to the schools, and children were chosen based on the school's perceptions of the children's difficulties. It is possible that short planning time preceding the groups, resulted in schools not being fully prepared for the delivery of the groups, particularly in the case of the experimental condition. Due to the time constraints posed by school terms it was not possible to collect follow-up data for the wait-list control group. As a result of the utilisation of a wait-list control group, it was not possible to make comparisons at follow-up, since this condition was no longer acting as a control group.

The collaboration with 2 trainee educational psychologist colleagues meant that a large number of questionnaires were delivered, which meant a great deal of time was spent by the teachers and children in particular, engaged in answering questionnaires. The delivery of the intervention across 3 areas of a large county authority posed additional challenges, particularly in matching the groups, which had to be matched within the 3 areas, due to large geographical distances between the areas.

3.10: Summary

This study has undertaken a mixed methods approach utilising both quantitative questionnaires and semi-structured qualitative interviews to explore both the outcomes and the process of a CBT intervention for anger management. The following chapter will outline the results of the study described here, presenting an overview of results of both the quantitative and qualitative methods set out in this chapter.

4: Results

This chapter aims to answer the research questions posed by presenting both quantitative analysis of the questionnaire data, which were collected pre and post intervention, and the qualitative analysis of the semi-structured interviews. Firstly there will be a consideration of the results of the quantitative analysis before turning to the results of the qualitative analysis. In the first section outlining the quantitative results there will be a presentation of the statistical analysis undertaken, including an overview of the comparability of groups and the reliability of the measures utilised. A review of the statistical analysis undertaken to answer both the central and the supplementary research questions will be presented. The second section will detail the results of the semi-structured interviews undertaken with a sub-sample of children, facilitators and parents.

4.1: Quantitative results

4.1.1: Comparability of groups

An initial analysis using a one way ANOVA was run to compare initial SDQ scores for the experimental and wait-list control groups. Results indicate that there were no significant differences in total SDQ and emotional, conduct, hyperactivity and peer SDQ subscale scores between the experimental and the wait-list control group at time 1 (see appendices for table of results). There was a significant difference between the experimental and wait-list control groups on the pro-social subscale at time 1($F= (1, 67)\ 4.02$, $p<0.05$). For SDQ scores at time 1 by group please see appendix 31.

An initial analysis using an independent t-test was run to compare initial locus of control for the experimental and wait-list control groups. Results indicate that there were no significant differences between internal locus of control in the experimental and wait-list control groups at time 1 ($t=1.34$, $df=66$, $p> 0.05$). For locus of control scores at time 1 please see appendix 32.

An initial analysis using an independent t-test was run to compare adverse life events at the outset for the experimental and wait-list control groups. Results indicate that there were no significant differences in Adverse Life Events experienced at time 1 between the experimental and wait-list control groups ($t= -0.52$, $df=67$, $p>0.05$). For Adverse Life Events at time 1 please see appendix 33.

A one way ANOVA was run at time 2 to compare SDQ scores in the experimental and wait-list control groups and found no significant differences between the groups on total SDQ, emotional, conduct, hyperactivity and peer subscales (see appendices for a table of results). The ANOVA did indicate that there was a significant difference between the experimental and wait-list control group scores on the pro-social subscale ($F= (1, 67) 7.41$, $p< 0.01$).

4.1.2: Reliability of Measures

SDQ and locus of control measures were tested for reliability using Cronbach's alpha, SDQ subscales and locus of control scales were shown to demonstrate good internal reliability, with Cronbach's alpha scores = >0.6.

4.1.3: Central research question

Is a CBT group intervention effective for anger management in key stage 2 pupils?

Statistical analysis was used to explore the central research question. Mean SDQ scores at times 1 and 2 for experimental and wait-list control groups are shown in the following table:

Table 2: Mean SDQ scores at times 1 and 2.

	Experimental group Mean (standard deviation)		Wait–list control group Mean (standard deviation)	
	Time 1	Time 2	Time 1	Time 2
Total SDQ	15.77 (6.84)	15.43 (8.26)	17.59 (5.62)	17.09 (6.11)
Emotional	2.26 (2.64)	2.29 (2.71)	2.97 (2.34)	2.71 (2.10)
Conduct	3.80 (2.27)	4.20 (2.58)	4.18 (2.22)	4.38 (2.40)
Hyperactivity	6.29 (2.76)	5.94 (2.66)	6.74 (2.75)	6.35 (2.27)
Peer	3.43 (2.32)	3.00 (2.64)	3.71 (2.41)	3.65 (2.74)
Pro-social	5.57 (2.32)	5.66 (2.13)	4.35 (2.72)	4.26 (2.12)

A lower score on the SDQ represents a lower level of perceived difficulty, with the exception of the pro-social subscale. It seems that there were some improvements in total SDQ, the hyperactivity, peer and pro-social subscales for

the experimental group, however there were also improvements for total SDQ, emotional, hyperactivity and peer subscales for the wait-list control group.

Paired samples t-tests were undertaken to compare SDQ subscale scores between times 1 and 2 for both the experimental and wait-list control groups. Results from the paired samples t-tests for SDQ subscales scores can be seen in the following table:

Table 3: T-tests for changes in SDQ scores between time 1 and time 2.

	Experimental group			Wait-list control group		
	t	df	sig.	t	df	sig.
Total SDQ	0.306	34	0.761	1.054	33	0.300
Emotional	-0.087	34	0.931	1.026	33	0.312
Conduct	-1.103	34	0.278	-0.705	33	0.485
Hyperactivity	0.745	34	0.461	1.489	33	0.146
Peer	1.034	34	0.309	0.320	33	0.751
Pro-social	-0.196	34	0.845	0.281	33	0.781

Results of the paired samples t-tests show that there are no significant differences in SDQ scores between times 1 and 2 for either the experimental and wait-list control groups.

The central research question was further investigated using multiple linear regression analysis. Multiple linear regression enables the prediction of the dependent variable based on a number of simultaneous predictors or

independent variables. Multiple linear regression was carried out to examine whether the change in SDQ results between time 1 (pre experimental intervention) and time 2 (post experimental intervention) could be predicted by 'experimental condition', that is whether the children were in the experimental or wait-list control group. Multiple regression analysis was carried out to predict change in SDQ total scores and in each of the SDQ subscales from time 1 to time 2. SDQ scores at time 2 were entered in the multiple regression analysis as the dependent variable, while controlling for SDQ scores at time 1. The predictor variables which were included in the regression analyses included age (national curriculum year), gender, socio-economic deprivation measured by free school meals and Index of Multiple Deprivation Score for children, and family stress measured by Adverse Life Events at time 1.

The analysis of total SDQ scores and each SDQ subscale will be addressed in turn.

4.1.3.1: Total SDQ scores at time 1 and time 2

The results for the multiple linear regression analysis predicting change in the total SDQ scores from time 1 to time 2, with total SDQ scores at time 2 as the dependent variable can be seen in the following table:

Table 4: Changes in total SDQ from time 1 to time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	4.910	5.241		.937	.353
Condition	.504	1.315	.035	.383	.703
Age	-.868	.734	-.101	-1.183	.241
Free school meals	3.206	1.656	.178	1.936	.058
Index of Multiple Deprivation	-.835	8.251	-.009	-.101	.920
Adverse Life Events	-.154	.141	-.093	-1.093	.279
Gender	.563	1.501	.033	.375	.709
Total SDQ time 1	.899	.102	.777	8.805	.000

Results indicate that condition was not a significant predictor of total SDQ scores at time 2 when controlling for total SDQ scores at time 1. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation score and Adverse Life Events were not significant predictors of total SDQ scores at time 2.

4.1.3.2: SDQ emotional subscale at times 1 and 2

The results of the multiple linear regression analysis predicting change in the SDQ emotional subscale scores from time 1 to time 2, with emotional SDQ scores at time 2 as the dependent variable are presented in the following table:

Table 5: Changes in emotional SDQ subscale from time 1 to time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	2.755	1.548		1.780	.080
Condition	.083	.402	.017	.207	.836
Age	-.259	.227	-.091	-1.139	.259
Free school meals	1.223	.504	.205	2.426	.018
Index of Multiple Deprivation	-.771	2.527	-.025	-.305	.761
Adverse Life Events	-.117	.043	-.214	-2.695	.009
Gender	-.200	.473	-.035	-.423	.674
Emotional SDQ time 1	.787	.080	.816	9.829	.000

Results indicate that condition was not a significant predictor of emotional SDQ scores at time 2 when controlling for SDQ emotional scores at time 1. The predictor variables of free school meals and Adverse Life Events were

significant predictors of SDQ scores on the emotional subscale at time 2. The predictor variables of age, Index of Multiple Deprivation and gender were not significant predictors of SDQ scores on the emotional subscale at time 2.

4.1.3.3: SDQ conduct subscale at times 1 and 2

The results of the multiple linear regression analysis predicting change in the SDQ conduct subscale scores from time 1 to time 2, with conduct SDQ scores at time 2 as the dependent variable are presented in the following table:

Table 6: Changes in conduct SDQ subscale from time 1 to time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	1.100	1.978		.566	.580
Condition	-.019	.503	-.004	-.037	.971
Age	-.107	.282	-.037	-.380	.705
Free school meals	.222	.623	.037	.356	.723
Index of Multiple Deprivation	1.200	3.206	.039	.374	.709
Adverse Life Events	.014	.054	.026	.264	.793
Gender	.309	.582	.054	.531	.597
Conduct SDQ time 1	.754	.111	.682	6.784	.000

Results indicate that condition was not a significant predictor of conduct scores at time 2 when controlling for SDQ conduct scores at time 1. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were not significant predictors of SDQ scores on the conduct subscale at time 2.

4.1.3.4: SDQ hyperactivity subscale at times 1 and 2

The results for the multiple linear regression analysis predicting change in the SDQ hyperactivity subscale scores from time 1 to time 2, with hyperactivity SDQ scores at time 2 as the dependent variable are presented in the following table:

Table 7: Changes in hyperactivity SDQ subscale from time 1 time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	3.748	2.100		1.785	.079
Condition	.371	.509	.076	.730	.468
Age	-.177	.286	-.061	-.620	.537
Free school meals	.174	.632	.029	.276	.784
Index of Multiple Deprivation	1.911	3.237	.062	.590	.557
Adverse Life Events	-.049	.054	-.088	-.900	.372
Gender	-.562	.586	-.097	-.959	.341

Hyperactivity SDQ time 1	.541	.093	.602	5.791	.000

Results indicate that condition was not a significant predictor of hyperactivity scores at time 2 when controlling for SDQ hyperactivity scores at time 1. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were not significant predictors of SDQ scores on the hyperactivity subscale at time 2.

4.1.3.5: SDQ pro-social subscale at times 1 and 2

The results for the multiple linear regression analysis predicting change in the SDQ pro-social subscale scores from time 1 to time 2, with pro-social SDQ scores at time 2 as the dependent variable are presented in the following table:

Table 8: Changes in pro-social SDQ subscale from time 1 to time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	2.792	1.882		1.484	.143
Condition	-.699	.489	-.158	-1.430	.158
Age	.087	.268	.033	.324	.747
Free school meals	.638	.593	.117	1.076	.286
Index of Multiple Deprivation	1.089	3.037	.039	.358	.721

Adverse Life Events	.014	.052	.028	.271	.787
Gender	.164	.558	.032	.295	.769
Pro-social SDQ time 1	.438	.092	.508	4.741	.000

Results indicate that condition was not a significant predictor of pro-social scores at time 2 when controlling for SDQ pro-social scores at time 1. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were not significant predictors of SDQ scores on the pro-social subscale at time 2.

4.1.3.6: SDQ peer subscale at times 1 and 2

The results of the multiple linear regression analysis predicting change in SDQ peer subscale scores from time 1 to time 2, with peer SDQ scores at time 2 as the dependent variable are presented in the following table:

Table 9: Changes in peer SDQ subscale from time 1 to time 2.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	.929	1.911		.486	.629
Condition	.386	.483	.073	.799	.427
Age	-.400	.272	-.129	-1.472	.146
Free school meals	.899	.598	.138	1.502	.138

Index of multiple Deprivation	-1.703	3.076	-.052	-.554	.582
Adverse Life Events	-.002	.053	-.004	-.040	.968
Gender	.636	.558	.103	1.141	.258
Peer SDQ time 1	.859	.104	.748	8.252	.000

Results indicate that condition was not a significant predictor of peer scores at time 2 when controlling for SDQ peer scores at time 1. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were not significant predictors of SDQ scores on the peer subscale at time 2.

4.1.3.7: Central research question summary

Results indicate that the CBT intervention did not result in significant changes in SDQ scores at time 2 and therefore the intervention was not effective for the experimental group when comparing their results with the wait-list control group on SDQ scores across total and subscales.

4.1.4: Supplementary question 2 (time 1 to time 2)

Is the success of the group intervention moderated by background factors such as age, gender, socio-economic status, levels of family stress, and levels of parenting stress?

Multiple linear regression analyses were run to explore whether the background variables of age, gender, free school meals, Index of Multiple Deprivation and

Adverse Life Events at time 1 moderated the success of the intervention between time 1 and time 2. Although the intervention was not successful overall, moderator analyses were undertaken to explore whether it was successful for particular groups.

The descriptive analysis of the Parenting Stress Index measure demonstrated that 35.7% of the data were classified as missing. 60% of the data were classified as being possibly indicative of defensive scoring by the parents as described by the Parenting Stress Index manual. Since only 4.3% of questionnaires could be seen to be reliable, the Parenting Stress Index was excluded from analysis as a predictor or moderating factor.

SDQ scores at time 1, the experimental condition and the other predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events at time 1 were entered in the first block of the analysis as predictors. The interaction terms of 'moderator' x condition were entered in the second block of the analysis. Interaction terms were calculated between condition and the following moderator variables: age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events. Multiple linear regression analyses were run for total SDQ scores and each subscale of the SDQ.

Results indicate that the background variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events did not act as

significant moderating variables from time 1 to time 2 for total SDQ and all SDQ subscales (see appendices for table of results) .

4.1.5: Supplementary question 1

Can CBT based anger management have a long term impact on children's anger and aggressive behaviour (at a 3 month follow-up)?

Analyses to explore whether a change in SDQ scores had taken place between time 2 and time 3 were carried out. The analyses were undertaken to explore whether the experimental group had made improvements at follow-up. The analyses undertaken also explored whether the intervention was effective for the children in the wait-list control group (therefore also answering the central research question). Mean SDQ scores at times 2 and 3 are shown in the following table:

Table 10: Mean SDQ scores at times 2 and 3.

	Experimental group Mean (standard deviation)		Wait-list control group Mean (standard deviation)	
	Time 2	Time 3	Time 2	Time 3
Total SDQ	15.43 (8.26)	15.97 (8.16)	17.09 (6.11)	13.36 (5.58)
Emotional	2.29 (2.71)	2.45 (2.21)	2.71 (2.10)	1.85 (1.64)
Conduct	4.20 (2.58)	4.03 (2.68)	4.38 (2.40)	3.18 (2.04)
Hyperactivity	5.94 (2.66)	6.18 (3.07)	6.35 (2.27)	5.52 (2.80)
Peer	3.00 (2.64)	3.30 (2.69)	3.65 (2.74)	2.82 (2.71)
Pro-social	5.66 (2.13)	5.91 (2.47)	4.26 (2.12)	5.00 (2.37)

A lower score on the SDQ represents a lower level of perceived difficulty, with the exception of the pro-social subscale. It seems that there were improvements in SDQ scores for the wait-list control group post intervention for total SDQ, emotional, conduct, hyperactivity, peer and pro-social subscales. It seems that there was deterioration in all SDQ scores from time 2 to time 3 for the experimental group apart from the conduct and pro-social subscales which showed improvements at follow-up. Although the conduct subscale did show improvements at time 3 compared to time 2, the scores had not returned to the levels recorded at time 1 (please see appendices for table of mean scores for SDQ at all 3 time points).

Analyses were run to explore whether there were any significant differences in SDQ scores from time 2 to time 3 for either the experimental or the wait-list control conditions.

Paired samples t-tests were undertaken to compare SDQ subscale scores between time 2 and time 3 for both the experimental and wait-list control groups. Results from the paired samples t-tests for SDQ subscales scores can be seen in the following table:

Table 11: Changes in SDQ scores between time 2 and time 3.

	Experimental group			Wait-list control group		
	t	df	Sig.	t	df	Sig.
Total SDQ	-0.304	32	0.763	4.469	32	0.000
Emotional subscale	-0.193	32	0.843	2.769	32	0.009
Conduct subscale	0.314	32	0.756	3.264	32	0.003
Hyperactivity subscale	-0.176	32	0.862	2.836	32	0.008
Peer subscale	-0.600	32	0.553	3.286	32	0.002
Pro-social subscale	-0.226	32	0.823	-2.993	32	0.005

Results of the paired samples t-tests show that there are significant differences between SDQ scores at times 2 and 3 for total SDQ, emotional, conduct, hyperactivity, peer and pro-social subscale scores for the wait-list control group only. This demonstrates that there was a significant improvement in scores for total and each subscale for the wait-list control condition. The results from the paired samples t-tests show that there are no significant differences between time 2 and time 3 SDQ scores for the experimental group.

Multiple linear regression analyses were carried out to examine whether change in SDQ scores between time 2 (post experimental/pre wait-list control intervention) and time 3 (follow-up for experimental and post wait-list control) could be predicted by experimental condition (experimental versus wait-list control). The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were also included.

Analysis of total SDQ scores and each SDQ subscale will be addressed in turn.

4.1.5.1: Total SDQ at times 2 and 3

The results of the multiple linear regression analysis predicting change in total SDQ scores from time 2 to time 3, with total SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 12: Changes in total SDQ from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	11.874	4.343		2.734	.008
Condition	-3.402	1.097	-.241	-3.101	.003
Age	.216	.603	.026	.359	.721
Free school meals	2.467	1.413	.136	1.745	.086
Index of Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
Adverse Life Events	-.253	.119	-.158	-2.116	.039
Gender	-1.697	1.241	-.101	-1.368	.177
Total SDQ time 2	.740	.070	.769	10.520	.000

Results indicate that experimental condition was a significant predictor of total SDQ scores at time 3 when controlling for total SDQ scores at time 2. The

predictor variable Adverse Life Events was also a significant predictor of SDQ scores at time 3. Age, gender, free school meals and Index of Multiple Deprivation were not significant predictors of total SDQ scores at time 3.

4.1.5.2: SDQ emotional subscale at times 2 and 3

The results of the multiple linear regression analysis predicting change in the emotional SDQ subscale scores from time 2 to time 3, with emotional SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 13: Changes in emotional SDQ subscale from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	3.208	1.410		2.276	.027
Condition	-.625	.370	-.160	-1.688	.097
Age	-.230	.204	-.100	-1.127	.265
Free school meals	.843	.479	.168	1.759	.084
Index of Multiple Deprivation	-.509	2.281	-.021	-.223	.824
Adverse Life Events	-.014	.040	-.033	-.356	.723
Gender	-.316	.425	-.068	-.744	.460
Emotional SDQ time 2	.571	.073	.707	7.867	.000

Results indicate that experimental condition was not a significant predictor of the emotional SDQ subscale at time 3 when controlling for the emotional SDQ subscale at time 2. The predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were not significant predictors of the emotional SDQ subscale at time 3.

4.1.5.3: SDQ conduct subscale at times 2 and 3

The results of the multiple linear regression analysis predicting change in the conduct SDQ subscale scores from time 2 to time 3, with conduct SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 14: Changes in conduct SDQ subscale from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	3.616	1.760		2.055	.044
Condition	-.905	.456	-.192	-1.986	.052
Age	.216	.252	.078	.858	.395
Free school meals	.159	.590	.026	.270	.788
Index of Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
Adverse Life Events	-.116	.050	-.218	-2.346	.023
Gender	-.901	.518	-.161	-1.741	.087
Conduct SDQ time 2	.633	.087	.661	7.253	.000

Results indicate that experimental condition failed marginally to be a significant predictor of the conduct SDQ subscale at time 3 when controlling for the conduct SDQ subscale at time 2. Adverse Life Events were a significant predictor of conduct SDQ subscale at time 3. The predictor variables of age, gender, free school meals and the Index of Multiple Deprivation were not significant predictors of the conduct SDQ subscale at time 3.

4.1.5.4: SDQ hyperactivity subscale at times 2 and 3

The results of the multiple linear regression analysis predicting change in the hyperactivity SDQ subscale scores from time 2 to time 3, with hyperactivity SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 15: Changes in hyperactivity SDQ subscale from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	2.474	2.183		1.133	.262
Condition	-.761	.524	-.131	-1.452	.152
Age	.091	.289	.027	.314	.755
Free school meals	1.397	.671	.186	2.082	.042

Index of Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
Adverse Life Events	-.053	.057	-.081	-.934	.354
Gender	-.684	.603	-.099	-1.133	.262
Hyperactivity SDQ time 2	.899	.109	.735	8.266	.000

Results indicate that experimental condition was not a significant predictor of the hyperactivity SDQ subscale at time 3 when controlling for the hyperactivity SDQ subscale at time 2. Free school meals were a significant predictor of hyperactivity SDQ subscale at time 3. The predictor variables of age, gender the Index of Multiple Deprivation and Adverse Life Events were not significant predictors of the hyperactivity SDQ subscale at time 3.

4.1.5.5: SDQ pro-social subscale at times 2 and 3

The results of the multiple linear regression analysis predicting change in the pro-social SDQ subscale scores from time 2 to time 3, with pro-social SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 16: Changes in pro-social SDQ subscale from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	1.918	2.053		.934	.354
Condition	.298	.535	.061	.558	.579
Age	-.385	.282	-.134	-1.362	.179
Free school meals	-.551	.676	-.088	-.814	.419
Index of Multiple Deprivation	4.372	3.164	.145	1.382	.172
Adverse Life Events	.056	.056	.101	1.008	.318
Gender	.137	.583	.024	.236	.815
Pro-social SDQ time 2	.734	.121	.660	6.052	.000

Results indicate that experimental condition was not a significant predictor of the pro-social SDQ subscale at time 3 when controlling for the pro-social subscale at time 2. The predictor variables of age, gender, free school meals, the Index of Multiple Deprivation and Adverse Life Events were not significant predictors of the pro-social SDQ subscale at time 3.

4.1.5.6: SDQ peer subscale at times 2 and 3.

The results of the multiple linear regression analysis predicting change in the peer SDQ subscale scores from time 2 to time 3, with peer SDQ scores at time 3 as the dependent variable are shown in the following table:

Table 17: Changes in peer SDQ subscale from time 2 to time 3.

	Unstandardised coefficients		Standardised coefficients		
	B	Standard Error	Beta	t	Sig.
Constant	1.771	1.555		1.139	.260
Condition	-1.157	.400	-.224	-2.894	.005
Age	.230	.220	.076	1.044	.301
Free school meals	.042	.518	.006	.082	.935
Index of Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
Adverse Life Events	-.060	.044	-.103	-1.378	.173
Gender	.521	.453	.085	1.150	.255
Peer SDQ time 2	.746	.073	.763	10.276	.000

Results indicate that experimental condition was a significant predictor of the peer SDQ subscale at time 3 when controlling for the peer subscale at time 2. The predictor variables of age, gender, free school meals, the Index of Multiple Deprivation and Adverse Life Events were not significant predictors of the peer SDQ subscale at time 3.

4.1.6: Supplementary question 2 (time 2 to time 3)

Is the success of the group intervention moderated by background factors such as age, gender, socio-economic status, levels of family stress, and levels of parenting stress?

Multiple linear regression analyses were run to explore whether the background variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events moderated the success of the intervention between time 2 and time 3, with SDQ scores at time 3 as the dependent variable. SDQ scores at time 2, the experimental condition and the other predictor variables of age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events were entered in the first block of the analysis as predictors. The interaction terms of 'moderator' x condition were entered in the second block of the analysis. Interaction terms were calculated for the following moderator variables: age, gender, free school meals, Index of Multiple Deprivation and Adverse Life Events. Multiple linear regression analyses were run for total SDQ scores and each subscale of the SDQ.

Results indicate that the background variables of gender, free school meals, Index of Multiple Deprivation and Adverse Life Events did not act as significant moderating variables from time 2 to time 3 across for total SDQ and across all SDQ subscales (please see appendix for table of results). Age did act as a significant moderating variable for total SDQ scores ($t= 1.294$, $df = 56$, $p<0.01$) but not for the SDQ subscales from time 2 to time 3.

It seems that the younger the children were in the wait-list control group, the more likely they would improve on total SDQ scores from time 2 to time 3. Mean total SDQ scores for children in the wait-list control group are presented below by age group:

Table 18: Mean total SDQ scores by age at time 2 and time 3.

	Year 4 Mean (standard deviation)	Year 5 Mean (standard deviation)	Year 6 Mean (standard deviation)
Time 2	18.00 (7.02)	17.67 (5.79)	14.63 (4.78)
Time 3	11.71 (5.99)	14.83 (5.36)	14.14 (4.95)

4.1.7: Supplementary question 3

Is the intervention mediated by locus of control?

Multiple linear regression analyses were carried out to examine whether locus of control acted as a mediating factor of the success of the intervention from time 2 to time 3. The internal subscale was used in the analysis. Results indicate that locus of control did not act as a significant mediating factor upon the change in total SDQ or subscales from time 2 to time 3 (please see appendix 27 for table of results).

4.1.8: Summary of quantitative results

In summary, results suggest that there was a reduction post intervention for total SDQ scores and scores on the peer subscale of the SDQ for those within the wait-list control group. No significant differences were found in scores post intervention for the experimental group on total SDQ and SDQ subscales. The results suggest that the only significant moderating factor was age for total SDQ scores, again only for the wait-list control group, scores on total SDQ suggest that younger children benefited more from the intervention. Results suggest that locus of control did not act as a mediating factor for the intervention.

4.2: Qualitative results

The following section will present the themes developed from the qualitative data through the process of thematic analysis. The qualitative data are based on 21 interviews with children. A number of adult interviews were undertaken, exploring the views of facilitators and parents. The analysis will focus primarily on the themes developed from the interviews undertaken with the children. The themes developed from the 4 facilitator interviews and 4 parent interviews will be presented only to compare and contrast with the themes developed from the interviews with the children. The qualitative analysis of the semi-structured interviews seeks to answer the following research questions: 'Is a CBT group intervention effective for anger management in key stage 2 pupils?' and 'Which factors impact on the success of the intervention?'.

Quantitative analysis has demonstrated significant differences in total and peer SDQ scores post intervention for those children who were in the wait-list control condition but not the experimental condition. Drawing on results from the quantitative analysis, this section will explore whether patterns emerge in terms of particular themes being attributed to certain participants based on whether they were from either the experimental or wait-list control condition.

Three superordinate themes were identified, namely anger, positive responses towards the intervention, and negative responses towards the intervention. Within each of these superordinate themes, further subordinate themes were identified which comprised of sub-themes. The subordinate themes and sub-themes are presented with example quotations in table format. Each quote is numbered with a corresponding interview participant number. Children who were in the experimental condition are preceded with an E and children who were in the wait-list control condition are labelled with a W. Where themes were identified by adult participants only, the example quote will be that of a parent or facilitator and will be preceded by a P or F respectively. The number of child respondents for each sub-theme within either the experimental or wait-list condition is shown in the table. An overview of the occurrence of each sub-theme by participant can be found in the appendices.

4.2.1: Superordinate theme: Anger

A number of subordinate themes related naturally enough to the superordinate theme of anger, including the children's ability to acknowledge their anger difficulties, the triggers for their anger, how the children respond when they are

angry and the consequences of this behaviour. The children also spoke about changes in their anger and aggressive behaviour since the anger management group.

4.2.1.1: Acknowledgement of anger

The majority of the children interviewed across the experimental and wait-list control groups were able to acknowledge their difficulties in relation to controlling their anger and that they had been chosen to come to the group because of these difficulties. This theme was supported by parents who were able to acknowledge their child's difficulties with anger management. A small number of children were unable to identify why they had been chosen to attend the group.

The sub-themes for acknowledgement of anger are presented in the following table:

Table 19: Acknowledgement of anger.

Subordinate theme: Acknowledgement of anger	Experimental	Wait-list control	Example quotation
Sub-themes			
Acknowledgement of anger as reason for attending group	9	6	"sometimes I get really angry and just lose myself and like punch people." (E5)

Not knowing why attended group	1	3	"I don't know." (E2)

4.2.1.2: Anger triggers

The triggers for anger identified by the children fell mainly into two categories, physical triggers which were usually in the form of other children hitting or hurting them and verbal triggers which included other children calling them names and saying things about their family. Whereas responses about verbal triggers were across experimental and wait-list control groups, physical triggers were only identified by the children in the wait-list control group and supported by one parent.

The sub-themes for anger triggers are presented in the following table:

Table 20: Anger triggers.

Subordinate theme: Anger triggers	Experimental	Wait-list control	Example quotation
Sub-themes			
Physical triggers	0	5	"when somebody hit me." (W21)
Verbal triggers	4	6	"before I wasn't in the group, if any boy said anything, the slightest little thing, I get really angry." (E20)

4.2.1.3: Anger responses

Participants spoke about their reactions when angry, which were mainly physical responses such as hitting and hurting other children. This sub-theme was identified by children both in the experimental and wait-list control groups, and supported by interview data from two facilitators and one parent. Children from the wait-list control groups also spoke about non-physical responses. This sub-theme was supported by two parents and one facilitator.

The sub-themes for anger responses are presented in the following table:

Table 21: Anger responses.

Subordinate theme: Anger responses	Experimental	Wait-list control	Example quotation
Sub-themes			
Physical responses	4	7	"he keep on annoying me and I hit him." (W21)
Non-physical responses	0	4	"When they start I call them a name back." (W19)

4.2.1.4: Consequences of anger

A small number of children spoke about regretting their behaviour when they became angry. Children also spoke about getting into trouble for their behaviour.

The sub-themes for consequences of anger are presented in the following table:

Table 22: Consequences of anger

Subordinate theme: Consequences of anger	Experimental	Wait-list control	Example quotation
Sub-themes			
Getting into trouble	1	4	"I get angry, throw and it hits them in the head and then I get in trouble." (W17)
Regretting behaviour	3	1	"I wished I didn't do anything now." (W6)

4.2.1.5: Changes in anger

The changes in anger which were identified by the participants post intervention were generally positive. These included participants not getting as angry as they did before the intervention, being more able to control their anger, having a better understanding of their anger, being able to see things from different points of view, not reacting when they are angry, and being more able to calm themselves down by using the calming strategies. The sub-themes which relate to positive changes in anger were generally equal between experimental and wait-list control groups, with the exception of controlling anger. The sub-themes

in changes in anger were supported by data from either parent or facilitator interviewees.

The sub-theme negative changes, describes deterioration in the children's behaviour. This theme was identified by parent and facilitator interviewees and not by the children themselves.

The sub-themes for changes in anger are presented in the following table:

Table 23: Changes in anger.

Subordinate theme: Changes in anger		Experimental	Wait-list control	Example quotation
Sub-themes				
Positive changes		9	6	"yeah happy and more secure and when I come to this group it was just at the beginning of year 5 and now I haven't had any detentions." (E5)
	Not getting angry	4	5	"well my anger has gone down a little bit, well I shouldn't say a little bit, I would say lots." (W10)
	Controlling anger	4	1	"because it taught me to control my anger, because

				before I was really, really angry." (E15)
	Understanding anger	2	1	"they helped me by making me understand, understand what angry is." (W19)
	Seeing things differently	1	2	"that it might not be the only way like when my parents say go to your room for a bit, calm down and things I thought that was a punishment but I decided it's not. It's just cos I'm seeing it differently." (E7)
	Not reacting	4	4	"After anger management I didn't react as much as I used to before the group." (W12)
	Using calming strategies	5	9	"He was pushing me and I went downstairs and hid and counting to twenty and then he couldn't find me and left me alone because he got bored. He tried to make me angry but it wasn't making me angry."

				(W1)
	Talking to an adult	2	2	"that I want to get her, but actually I went to tell Miss *****, every single time really." (W12)
Negative changes		0	0	"If anything his behaviour has worsened, so we are having quite a bad spell." (P1)

4.2.2: Superordinate theme: Positive responses to the intervention

A number of subordinate themes related to the superordinate theme of positive responses were identified. These included positive feelings towards the intervention, factors which supported the running of the intervention, helpful ideas from the intervention, and other benefits of the group intervention.

4.2.2.1: Positive feelings

The majority of children expressed positive feelings towards the group, which was supported by data from the parent and facilitator interviews. Further sub-themes were identified within the subordinate theme positive feelings and included the children indicating that they enjoyed the group which was supported by facilitator and parent data. Many children identified there had been changes in their feelings towards the group. Although the children had initially been worried about coming to the group, their feelings towards the group had changed and they now viewed the group positively. This theme was

supported by one parent. A number of children stated that they did not want the group to end, which was supported by a facilitator. Views were generally evenly spread across the children in the experimental and wait-list control groups for all sub-themes.

The sub-themes for positive feelings are presented in the following table:

Table 24: Positive feelings.

Subordinate theme: Positive feelings	Experimental	Wait-list control	Example quotation
Positive feelings	9	11	"I can really recommend it to somebody else because it's very educational and they can teach you how to control your anger" (E15)
Sub-themes			
Enjoying the group	5	8	"It was fun, I liked it." (E13)
Changes in feelings towards the group	6	3	"At first I didn't know what it was about so I was quite like nervous, but now I think it's really good." (E14)
Not wanting the group to end	1	2	"I feel a little better staying in the group and I didn't think it

			was going to finish. I wanted to stay." (W6)

4.2.2.2: Factors which supported the running of the group

Participants identified a number of factors which supported the running of the group. These included consistency of staff and activities, mutual trust, empathy towards other in the group, being supported by others, being with friends, being rewarded and having a variety of activities on offer.

Mutual trust was a sub-theme quite commonly identified by participants. A number of children identified that they were able to trust others within the group and knowing that the other children would not share their 'secrets'. In addition the children learnt to keep other children's information confidential themselves. This theme was more commonly identified within the wait-list control interviews. This sub-theme was supported by interviews with facilitators. Several children from the wait-list control groups also talked about empathy for other children within the group, showing an understanding of the difficulties which they faced.

The majority of children identified the sub-theme being supported by others including those in the group, friends, family and school staff. With the exception of friends offering support, these sub-themes were supported by parent or facilitator interviewees. Several children identified that it was good to be with friends. The sub-theme being with friends was supported by one facilitator interview. Responses were evenly spread across experimental and wait-list control groups.

Being rewarded was identified as a sub-theme by both children and facilitators. The theme having a variety of activities on offer was a sub-theme supported by facilitators only. The sub-theme consistency was identified by facilitators who highlighted that the children benefited from continuity in both facilitators for the group and a number of familiar activities.

The sub-themes for the factors which supported the running of the group are presented below:

Table 25: Factors which supported the running of the group.

Subordinate theme: Factors which supported the running of the group	Experimental	Wait-list control	Example quotation
Sub-themes			
Mutual trust	1	5	"yeah cos we are all friends and I know they're not going to tell anyone." (E7)
Empathy	0	5	"sorry for them, if they get really angry it makes me feel sorry because some people calm down much slower than others." (W1)

Consistency		0	0	"having the same person and obviously yourself and me there making it consistent for them as well." (F2)
Being supported by others	In the group	3	3	"I think like the people, our group, in our group, I think they've helped me in the playground, like if I get stressed in football or something, they just say no don't cos you remember our group and I just get really happy and walk away." (E14)
	Family	7	6	"my mum and dad..... they helped me with my homework to say how it could affect and they've also, when I was angry with my sister they just said think about your anger management and I thought about that and walked away." (E8)

	School staff	5	4	"well Mrs ****, she tells you to calm down and take deep breaths and not to get angry at ******." (W12)
	Friends	3	5	"well my friend ****** who is in my class he, he sometimes stops me trying to react, and I'm glad he does." (W10)
Being with friends		4	7	"it feels good that you are around some of your friends and that you are not just a person on your own, because it makes you feel lonely" (W1)
Being rewarded		2	1	"I liked it when we had the smiley faces" (W3)
Having a variety of activities on offer		0	0	"they enjoyed the variety of activities, so it doesn't get boring, not always the same thing." (F1)

4.2.2.3: Helpful ideas from the intervention

A small number of children identified the group rules as something that they had learnt in the group, with the majority of these children being in the wait-list control group. A small number of children in the experimental group identified that the group enabled them to think about being angry, which was supported by parent and facilitator interviews. Both children and facilitators identified that being able to write things down was being helpful. The majority of children identified the strategies they had learnt as something which could help them, often talking about the specific strategies which would be useful. This sub-theme was supported by facilitator interviews.

The sub-themes for helpful ideas from the intervention are presented in the following table:

Table 26: Helpful ideas from the intervention.

Subordinate theme: Helpful ideas from the intervention	Experimental	Wait-list control	Example quotation
Sub-themes			
The rules	1	4	"rules, put your hand up, take turns, keep your hands and feet to yourself, take turns and don't talk when another person is talking."

			(W16)
Thinking about being angry	2	0	"it made me think about what I'm doing when I'm angry." (E8)
Strategies	9	6	"The turtle technique and counting to ten, twenty or thirty or just to think you are in your imaginary planet or just think that if people call you names you do a catch phrase like I am too cool to get upset by that." (W1)
Writing things down	2	1	"cos you get to write down things that have happened and things, then you can just forget about it because it's like it's gone forever." (E7)

4.2.2.4: Benefits of the group intervention

In addition to the strategies employed by the intervention a number of other benefits were identified. The sub-themes of benefits of the intervention include: the children developing a sense of belonging to the group, the children being able to realise that other children got angry, and developing new friendships within the group and benefiting from talking to others about their difficulties.

A large number of children indicated that the group enabled them to get to know other children and develop new friendships with the children within the group. The responses from children for the sub-theme developing friendships were evenly spread across experimental and wait-list control groups. This sub-theme was supported by one of the facilitators.

Within the sub-theme talking with others, children indicated that the group provided the opportunity to talk with others about their difficulties. This was commonly cited by both children and the facilitators.

The facilitators of the groups talked about the children developing a sense of belonging to the group itself and a group identity. A couple of children from the experimental groups identified that knowing that others get angry was helpful, this was a sub-theme supported by adult interviews.

The sub-themes for benefits of the intervention are presented in the following table:

Table 27: Benefits of the intervention.

Subordinate theme: Benefits of the group intervention	Experimental	Wait-list control	Example quotation
Sub-themes			
Developing a feeling of belonging	0	0	"it's just the feeling of being part of something as well, you know that they liked." (F3)
Knowing others get angry	3	0	"because I know it isn't just me that gets angry, it made me feel better." (E20)
Developing friendships	4	4	"because we didn't really like each other much, but now we do cos we've got to know each other through the group." (E20)
Talking with others	6	4	"It was good like telling people how you feel instead of like keeping it to yourself all the time." (W12)

4.2.3: Superordinate theme: Negative responses to the intervention

A number of subordinate themes related to the superordinate theme of negative responses were identified. These included feelings at the outset of the

intervention, factors which made the group more difficult, barriers to using the ideas and making changes to the group.

4.2.3.1: Feelings at the outset

A number of children talked about not knowing what to expect from the group before it started. Around half of those children interviewed talked about having felt nervous about coming to the group at the beginning, with a number of children indicating this was as a result of not having known what the group would be like. The sub-themes of not knowing what to expect and feeling apprehensive were represented in both the interviews of children from both the experimental and wait-list control groups. One parent also spoke about their child feeling apprehensive and not knowing what to expect at the beginning of the intervention.

The sub-themes for feelings at the outset are presented in the following table:

Table 28: Feelings at the outset.

Subordinate theme: Feelings at the outset	Experimental	Wait-list control	Example quotation
Sub-themes			
Not knowing what to expect	2	5	"I didn't know what it was at first." (W6)

Feeling apprehensive at the beginning	8	4	"At first I didn't know what it would like so I was a bit worried and who was coming and all that, but then I was o.k. (E13)

4.2.3.2: Factors which made running the group more difficult

A variety of sub-themes were identified which were related to the factors which made running the group more difficult. These included organisational issues in terms of setting up the group in school, disruptive behaviour within the group itself, finding it difficult to talk about their anger, the children within the group not getting along with each other, mistrusting others in the group, not receiving help outside of the group intervention and not completing the CBT group homework.

Difficulties organising the group was a sub-theme identified by all four of the facilitators interviewed and included difficulties finding an appropriate space in school, organising the timings of the group and organising the attendance of the co-facilitator from the school. Disruptive behaviour within the group sessions was identified by a number of children within the experimental groups. This sub-theme was supported by facilitators of the experimental groups. Children described how they found it difficult to talk about being angry. This sub-theme was supported by facilitator and parent interviews. The adults interviewed indicated a number of children had found it difficult to talk about anger and their emotions in general within the group.

A number of children indicated that there were times when they and other children within the group did not get along with each other, which included the children being horrible or calling each other names in the group sessions. The sub-theme was more commonly expressed by those within the wait-list control group. Only two children from the experimental group talked about not getting on with others in the group. This sub-theme was supported by adult interviews.

Mistrusting others was a sub-theme identified within a small number of children's interviews and was supported by interviews with facilitators. A number of children stated that they did not know whether the children within the group would keep the information confidential. The children were worried that the other children may share the information discussed within the group with others outside of the group.

The sub-theme lack of help outside group was commonly identified by interview participants including a number of children from both wait-list control and experimental groups. The children stated that they had not received help with the ideas they had learnt, outside of the group. This sub-theme was supported by facilitator and parent interviews. All the facilitators' interviews highlighted that many of the children from the groups were not completing their CBT homework and that this had an impact on the group sessions.

The sub-themes for factors which made the group more difficult are presented in the following table:

Table 29: Factors which made running the group more difficult.

Subordinate theme: Factors which made running the group more difficult	Experimental	Wait-list control	Example quotation
Sub-themes			
Organisation of group	0	0	"I think we had a few time issues and things, with the dates because of school time and holidays." (F3)
Disruptive behaviour in group	5	0	"some people started disrupting the group." (E9)
Difficulty talking about anger	3	2	"If I was saying it I would get a bit embarrassed because I don't really like talk about stuff, if I get angry about someone dying you wouldn't want to say it." (W3)

Not getting on with others in the group	2	6	"well *** and *** they were a bit nasty to me a couple of days and ***** kept calling me a 'square head'." (W12)
Mistrusting others in group	1	3	"well I didn't mostly like the part where people who tell everybody about their private stuff because it was their stuff and maybe they don't want other people to find out." (E15)
Lack of help outside group	5	4	"no-one has helped me use them." (W10)
Failure to complete homework	0	0	"when we were sending little tasks home for them to do at home, we didn't have a lot of response." (F2)

4.2.3.3: Barriers to using the ideas

Children identified a number of factors which acted as barriers to using the ideas learnt in the group. These included, being too angry to use the ideas and other people.

A small number of children from the wait-list control group identified that at times they had found they were too angry to use the ideas. One child indicated

that when they became too angry they forgot to use the ideas from the group. This sub-theme was supported by one of the group facilitators. A large number of children identified that other people stopped them from using the ideas, particularly other children, but also parents and teachers. The children indicated that other people made it more difficult when they persistently annoyed them. Children from the wait-list control group indicated that they were able to use the ideas from the group apart from when others were derogatory about their family.

The sub-themes for barriers to using the ideas are presented in the following table:

Table 30: Barriers to using the ideas.

Subordinate theme: Barriers to using the ideas	Experimental	Wait-list control	Example quotation
Sub-themes			
Being too angry	0	2	"sometimes my anger will stop me, if I get too angry." (W18)
Other people	5	4	"No it's hard at home with my Mum and Dad, because they are always on my case moaning at me to do this and that, I get really annoyed with them a lot." (E13)

	Others talking about my family	0	2	"When they talk about my family, because I don't like it, when they say like stuff about your family, I don't like it" (W19)

4.2.3.4: Making changes to the group

The children identified a number of aspects of the group that they would like to change. This included making the intervention longer, changing the setting, choosing other participants and receiving individual attention. The adult interviewees identified the need for reinforcement of the strategies both in the home and school environment. The sub-themes for making changes to the group were generally spread across experimental and wait-list control participants.

One child indicated that he would have liked the sessions to have been longer. The sub-theme of longer intervention was supported by one of the parents and a group facilitator. Several children indicated that they would have liked to have done the group in a different setting, with indications that they would have liked the room to have been more comfortable and a more private space. A number of children indicated that they would have liked to change the children who were in the group, which was supported by facilitator interviews. One child stated that more individual attention would have helped him, which was supported by a parent interview.

The need for further reinforcement of the intervention within the wider environment was frequently cited, by all 4 facilitators interviewed and one of the parents of a child in the experimental group.

A few children stated that they would not change anything about the group, which was supported by a number of parent interviews.

The sub-themes for making changes to the group are presented in the following table:

Table 31: Making changes to the group.

Subordinate theme: Making changes to the group	Experimental	Wait-list control	Example quotation
Sub-themes			
Longer intervention	0	1	"make it longer and then we can have a little bit of a play." (W1)
Setting	2	2	"find a place that we like, somewhere in the school but in a better room, I'd change the colour, more fun things like teddies, we could sit down on instead of those manky chairs." (E4)

People	2	2	"if there was more sensible people but they do get angry it would be good for the people that are trying to learn." (E8)
Individual attention	1	0	"when there're not there sometimes so that I could do it one at a time." (E4)
Reinforcement in the wider environment	0	0	"perhaps if we took it on as a school." (F3)
Nothing	4	1	"nothing it's just great." (E5)

4.2.4: Summary of qualitative results

The data from qualitative interviews indicates that the intervention was viewed positively by the majority of participants. The children felt that intervention had positively impacted on their anger and aggressive behaviour, as well as benefiting them in a number of other ways relating to their emotional well-being. Factors which impacted on the success of the intervention including both positive and negative factors and were identified in the following themes: factors which made the group more difficult and factors which supported the running of the group. The majority of the sub-themes identified were shared by children in both experimental and wait-list control groups. The most notable exceptions were that the sub-theme disruptive behaviour was only cited by children in the experimental groups and the sub-themes physical triggers, non-physical

responses, empathy and mutual trust were generally weighted towards the participants from the wait-list control groups. Many of the sub-themes identified by the children participating in the groups were supported by interview data from either facilitators or parents. A small number of sub-themes were unique to the children, facilitators or parents.

4.5: Summary of results

Quantitative results from SDQs indicated there were significant differences in peer and total SDQ scores post intervention for the wait-list control group, while there were no such differences for the experimental group. Qualitative results suggested that all children had benefited from the intervention. A comparison of qualitative themes by condition highlighted differences between the experimental and wait-list control groups interviewed, which may explain differential quantitative results. The results which have been presented in this chapter will be further discussed making reference to the relevant literature in the following chapter.

5: Discussion

The current research utilised a mixed methods approach to answer the research question 'Is a CBT group intervention effective for anger management in key stage 2 pupils?'. The use of both quantitative and qualitative data has enabled a triangulation of outcome data. The use of a mixed methods approach had the additional benefits of gaining detailed information about the process of the intervention from the view of the participants and a deeper understanding of the quantitative outcome results obtained.

This chapter will present a discussion of the results outlined in chapter 4, addressing the findings in relation to the original research questions posed and drawing on relevant literature. This will be followed by an exploration of the methodological issues posed by the research in addition to areas for development and suggestions for future research. The implications of the current research will be considered specifically in relation to the delivery of a CBT based anger management group and therapeutic group interventions in schools in general.

5.1: Discussion of findings

5.1.1: Central research question

Is a CBT group intervention effective for anger management in key stage 2 pupils?

In relation to the central research question the quantitative analysis produced somewhat unexpected results, whereby significant reductions in total and peer

SDQ scores were seen post intervention for those in the wait-list control condition only, with no significant changes for the experimental group. These results raise the question as to why the wait-list control and experimental groups demonstrated such different results post intervention. These results could suggest that the short term CBT based group intervention impacted on the behaviour of the children in the wait-list control groups in relation to total difficulties and peer relations (as rated by the class teachers), but did not impact on the behaviour of the children in the experimental group.

It could be argued that the significant differences in results for the wait-list control group cannot be certainly attributed to the intervention, particularly since the design did not offer an additional control group to make comparisons with the wait-list control group at time 3. It could be proposed that these significant changes were due to chance alone or as a result of the children being identified by the school to take part in the intervention, they became motivated to change. However, while there was no 'control' group to compare with the wait-list control group, SDQ scores had had been collected for this group of children across similar points at time 1 and time 2 prior to the intervention with no significant changes. In this way the wait-list control group can be seen to act as their own comparison. Since the children had already been identified as being part of the group at this time point, this makes the hypothesis that they were more motivated to change also seem unlikely. In fact in addition to significant changes in SDQ scores only being seen between time 2 and time 3, the scores for the wait-list control group actually got worse from time 1 to time 2, although not significantly. This would suggest that the intervention impacted on the

behaviour of those children in the wait-list control group. This result would be in line with past research (Hemphill & Littlefield, 2005; Squires, 2001; Sukhodolsky et al., 2004) which identified positive changes in behaviour post intervention.

Quantitative results suggest that the intervention impacted on the behaviour of the children who attended the wait-list control groups and not those in the experimental groups. However, it could be argued that the differential findings between the wait-list control and experimental groups could be attributed to other factors, namely differences in intervention implementation, group attendance, completion of homework, or individual differences in schools or the children participating in the interventions, these factors will be addressed in turn.

It is apparent that there were absences from the groups which clearly could impact on the success of the intervention. However, since the average number of sessions missed was between one and none across all the groups, this appears improbable. While there was some variability between groups in terms of attendance to the sessions which could be offered as an explanation for differential outcomes between the experimental and wait-list control condition, this seems unlikely since no significant differences were found in terms of the number of sessions attended by participants between the two conditions ($t=-0.81$, $df=67$, $p>0.05$, see appendix 34 for summary of results).

It is evident that there was inconsistency in the completion of homework across the groups, with some groups demonstrating superior returns in the number of

homework tasks completed. Research exploring the impact of homework in CBT interventions remains inconclusive (Addis & Jacobson, 2000; Hughes & Kendall, 2007; Kazantzis & Lampropoulos, 2002; Sukhodolsky et al, 2004) nevertheless it remains possible that the variability in completion of homework between participants played a role in the differential outcomes between the two conditions. However this seems doubtful, since despite the failure of a large number of children to complete their homework, there were no significant differences between the wait-list and experimental conditions as a whole on the number of homework tasks completed ($t=0.27$, $df=67$, $p>0.05$, see appendix 34 for summary of results).

Differences in implementation may offer an explanation for differential outcomes between the experimental and wait-list control conditions. It is possible that since the facilitator had run the program through to the end with the experimental groups, prior to starting the groups with the wait-list control groups, facilitators were better at delivering the intervention with the wait-list control groups, and therefore differences in results could be attributed to implementation differences. However, since the facilitators adhered to the manualised program and fidelity scores were comparable between experimental and wait-list control groups (no significant differences were found, $t=1.83$, $df=68$, $p>0.05$, please see appendix 34 for summary of results, which suggests facilitators adhered closely to the program in both conditions) this seems unlikely. Nevertheless, fidelity is only one measure of facilitator performance and it remains possible there were differences in facilitator performance

between experimental and wait-list control conditions and this is an area which would benefit from further study.

Despite the experimental and wait-list control groups having received the 'same' intervention, the timing of the delivery of the groups within the research project was obviously different. The children in the wait-list control group had met the facilitator for the delivery of questionnaires at time 1 and time 2 prior to starting the research. The experimental group had only met the facilitator at one time point prior to the intervention. Since the children in the wait-list control group had met the facilitator on several more occasions prior to the intervention starting, it is possible that they had more of a chance to develop a relationship prior to the intervention. As the therapeutic relationship is central to positive outcomes in CBT, it is possible that the additional opportunities to meet the facilitator impacted on group outcomes. The facilitator also met the class teachers of the wait-list control groups on more than one occasion prior to the start of the intervention. In addition to the wait-list control children being more familiar with the facilitator at the start of their group, the school would have had more opportunity to build up a relationship with the facilitator which may have affected their approach to the intervention. However 'wait-list control groups' are widely utilised in research and there is no evidence for this pattern in the literature, this argument remains an unlikely explanation for the differential outcomes.

Individual differences between pupils in the experimental and wait-list control group could be offered as a possible explanation in the unexpected pattern of

results. Groups were matched on total SDQ scores at the outset of the intervention and results indicated that the experimental and wait-list control conditions were comparable on SDQ scores, with the exception of the pro-social subscale, with children in the experimental condition showing on average significantly higher, therefore more well developed pro-social skills that the comparison group. It is therefore possible that the differences in pro-social skills between the two conditions could offer an explanation for the differential outcomes seen. It could be that the CBT intervention was less effective for those children with better social skills, however this explanation does seem implausible, since one would expect the opposite to be true, especially given the social nature of a group intervention. This pattern of results is not supported by research evidence and indeed there is research exploring CBT with children with depression which indicates the opposite pattern, with children with fewer social skills being less likely to respond to intervention (Jayson, Wood, Kroll, Fraser & Harrington, 1998).

It is possible that other individual differences could have contributed to the unexpected pattern of results. Results suggested that family stress, gender, and socio-economic status did not act as moderating factors for the intervention, while age did act a moderator for the wait-list control group. These individual factors will be further explored in supplementary question 2. While these areas of study have been driven by previous research, it remains possible that individual factors not measured within this study could have impacted on outcomes.

While the Index of Multiple Deprivation score did not act as a moderating factor at the individual child level, there was a significant difference identified between the experimental and wait-list control groups in terms of the level of social deprivation of the area in which the school was situated, with schools in the experimental groups being in more deprived areas (as measured by the Index of Multiple Deprivation). Therefore the schools in the experimental groups were more likely to be in a deprived area than those in the wait-list control groups.

In addition to differential scores in the level of socio-economic deprivation between the wait-list and experimental schools, there were significant differences in terms of the SATS results of the children in those schools in key stage 2. The wait-list control schools achieved significantly better SATS results in Maths, English and Science. Although direct links can be drawn between lower attainment results and socio-economic deprivation, it is widely held that attainment scores are a measure of a school's success. Therefore a school in a less deprived area, with higher attainment scores may be more able to support children who are experiencing difficulties. It seems possible that the individual differences between schools may be linked to the differential results of the experimental groups compared to the wait-list control groups. Such patterns are evidenced in previous research and a study investigating the outcomes of a multi-component intervention to reduce aggression (Metropolitan Area Child Study Research Group, 2002) found a 'school effect' on the outcomes of the intervention. Namely, that the intervention was not successful in schools in poor urban neighbourhoods which had low levels of school and community resources.

There will be an examination of the differences between the experimental and wait-list control groups, based on the themes identified in the interviews. This may offer further explanation for the differential results on quantitative measures between the experimental conditions.

Through examination of the qualitative themes by condition it was evident that a number of themes were more common or unique to the participants from the wait-list control group or the experimental group. These themes will be discussed in turn.

5.1.1.1 Disruptive behaviour

The theme disruptive behaviour was only identified by participants of the experimental condition. It is therefore possible that the disruptive behaviour experienced during the experimental sessions acted as an inhibitor to the successful running of the groups. Due to the disruptive behaviour, it is likely that the children were not able to fully engage with the tasks presented to them. Research has found that children's attention levels are a significant predictor of outcome post intervention. For example, Hemphill and Littlefield (2005) highlighted that children who experienced difficulties attending may have not been able to listen to, or maintain the strategies from the group, which therefore resulted in less positive outcomes for those children.

Dishion et al. (1999) found that group members can reinforce aggressive and anti-social behaviours within a group intervention, therefore reducing positive

outcomes. Letendre and Davis (2004) highlight that the importance of the group facilitator's ability to manage disruptive and aggressive behaviours, therefore enabling the children to engage with the intervention. Letendre and Davis (2004) acknowledge that it is important to managing behaviour within the group, to aid group cohesion. However, facilitating the development of a cohesive group can be very challenging. It is evident that it is important that disruptive behaviour within the group is managed, to enable children to both engage with the activities on offer, but also to aid the development of a cohesive group.

Nickerson and Coleman (2002) identify group climate as playing an important role in the success of group therapy for anger management. Yalom (1995) outlines group climate as being related to the emotional tone and attitude of the members of the group. It is therefore possible that the disruptive behaviour experienced within the experimental groups negatively impacted upon both the group climate and group cohesion within the experimental group. This could be related to the less positive outcomes for the experimental groups. Research has supported the notion that group climate is related to outcomes in group counselling (Kivlighan & Tarrant, 2001).

5.1.1.2: Anger: Triggers and responses

A number of themes which related to the superordinate theme anger were more commonly identified by the children in the wait-list control group. These children were able to identify both physical and verbal triggers for their anger, whereas the children in the experimental group only identified verbal triggers. The children in the wait-list control group were also more able to identify their

responses when angry. Research interviews undertaken post intervention with children in previous studies, have identified that the children involved in successful anger management groups said they were aware of the triggers for their anger and their reactions (Dwivedi and Gupta, 2000; Squires, 2001). Since the ability to identifying triggers and responses was central to the CBT based intervention, it seems that this increased ability by the children in the wait-list control group may be linked to the success of the intervention for these children. As a result of these findings it would be useful for future research to explore the improved ability to identify triggers and responses as a mediator for the success of CBT based anger management groups.

5.1.1.3: Empathy and mutual trust

The themes empathy and mutual trust were mostly identified by children in the wait-list control group. It is possible that the children in the wait-list control group possessed better developed emotional skills, were indeed more trusting of each other and were more able to display empathy in comparison to their experimental counterparts. However, it is possible that these children were in fact just more reflective and more able to talk about their feelings.

If indeed the children in the wait-list control group were more able to trust one another and display empathy for others, this may act as a moderating factor which could predict the success of the intervention. It is also possible that these children developed mutual trust and empathy through involvement in the group intervention. The children's increased ability to understand how others are feeling and the ability to trust other children may positively impact on their ability

to participate by joining in group discussions, as well as possibly contributing positively to the group climate. The children's increased ability to understand how others feel may have assisted the children in interpreting trigger situations. Perhaps enabling them to avoid the misinterpretation of situations as negative, which can result in aggressive behaviours.

The sub-theme trust has also been identified in interviews in research with adolescents evaluating CBT based anger management. Humphrey and Brooks (2006) identified trust as a factor which impacts on the success of a CBT based anger management group intervention. Humphrey and Brooks (2006) found that trust was linked to the extent to which participants felts they were able to share their experiences.

5.1.1.4: Improvements in anger management

Despite the lack of quantitative evidence demonstrating positive gains for the experimental group, qualitative evidence from the interviews indicated that the intervention did help the children manage their anger. Positive changes identified in relation to anger management included, not getting angry, controlling anger, understanding anger, thinking about things differently, not reacting when angry, using calming strategies and talking to an adult when angry. Other studies have found similar positive findings from interviews with children, identifying that children are more able to talk about their feelings (Dwivedi & Gupta, 2000; Squires, 2001), are better able to control their anger (Nickerson & Coleman, 2006), do not react as aggressively (Dwivedi & Gupta, 2000; Squires, 2001), learn to think before acting (Nickerson & Coleman, 2006)

and use strategies learnt in the anger management group (Dwivedi & Gupta, 2000).

Further factors which impact on the success of the intervention will be discussed in response to the supplementary research question 4 "What factors impact on the success of the intervention from the views of the participants?".

5.1.2: Supplementary question 1

Can CBT based anger management, have a long term impact on children's anger and aggressive behaviour (at a 3 month follow-up)?

Quantitative results indicate that there were no significant improvements at the 3 month follow-up for the experimental group. However, this group had not shown improvement immediately following the intervention, so improvement at follow-up would not be expected. It would have been useful to collect follow-up data for the wait-list control group, which did show improvement post intervention. Previous research has shown that CBT based interventions can have a positive long term impact on anger management, with research showing improved outcomes being maintained at follow-up (Deffenbacher et al., 2000).

5.1.3: Supplementary question 2

Is the success of the group intervention moderated by background factors such as age, gender, socio-economic status, levels of family stress, and levels of parenting stress?

5.1.3.1: Age

Quantitative results indicated that age seemed to act as a moderator of the success of the wait-list control group, with the younger children seeming to be more responsive to the intervention. Research into psychotherapy has indicated that therapy is more effective with children than adolescents (Weisz et al., 1987). A meta-analysis of interventions for aggressive behaviour found that younger children benefited more than older children from universal (whole class) interventions for aggression (Wilson & Lipsey, 2007). It is possible that the younger children benefited more from the intervention, since their behaviour may not be as established and therefore there is more scope for behavioural change (Braet et al, 2009). This would support the use of CBT based groups for children aged 7-11. However past studies exploring age as a moderator of CBT for anger management have shown contradictory results. Sukhodolsky (2004) did not find that age acted as a significant moderator and other research found that older children benefited more from the intervention than younger children (Bennett & Gibbons, 2000; Durlak et al., 1991).

5.1.3.2: Gender

Gender did not act as a moderating factor for the success of the intervention in this research. Previous research has indicated that CBT based interventions have proven more successful with girls than boys (Kazdin & Crowley, 1997; Sukhodolsky et al., 2004). However, Bennett and Gibbons (2000) state that other research has not found gender to be a significant moderator, although claim this is due to the small samples of girls involved in the research studies, which is also true of this study.

5.1.3.3: Socio-economic status

In the present study socio-economic status did not act as a moderator for the CBT intervention. Research exploring socio-economic status as a moderator of interventions for anger management has been inconclusive. Some studies found that there was no impact of socio-economic deprivation on treatment outcome (Hemphill & Littlefield, 2006; Wilson & Lipsey, 2007). Other research has found that children with lower socio-economic status do worse (Kazdin & Crowley, 1997). Although the Index of Multiple Deprivation did not act as a moderator in this study, this may have been due to the score for the school being used rather than the score for each individual child. Free school meals were also used as a measure of socio-economic deprivation. However this is a narrower measure of social deprivation than the Index of Multiple Deprivation. Free school meals as a measure of socio-economic deprivation only uses categorical data of yes and no, and the number of children who are able to receive free school meals is very limited. Further studies may do well to look at other measures of socio-economic status, since it is possible to use more sensitive measures of socio-economic status. However, it was not feasible in the current study to gain detailed measures such as family income, for instance. It would be interesting to pursue this further in future studies.

5.1.3.4: Family stress

Family stress did not act as a moderator of the CBT intervention in the current research. A number of other studies have indicated the impact of family contextual variables, including family stress, on the success of CBT (Kazdin,

1995; Kazdin, 1997; Kazdin & Crowley, 1997). Hemphill & Littlefield (2005) found that family stress was not a significant predictor of outcome post intervention in an evaluation of a short term CBT group. It is possible that it is not the life events per se which impact on intervention outcomes, but the family's ability to offer support and deal with such negative life events which matters. Prior research has indicated that contextual factors such as lack of positive relationships, social isolation, and poor child rearing practices have been found to be predictive of treatment outcomes for CBT and parenting behavioural programs (Dumas & Wahler, 1983; Kazdin, 1995).

5.1.4: Supplementary question 3

Is the intervention mediated by locus of control?

Quantitative results indicated that locus of control did not act as a mediating factor for this intervention. Research had indicated the role of locus of control as a mediator in CBT interventions for agoraphobia (Kasvikis et al., 2003) and chronic pain (de Boer & Versteegen, 2006). However, changes in locus of control were not seen till follow-up in a study of CBT for spinal cord injury (Craig, Hancock, Chang & Dickson, 1998) and for PTSD in children (March et al., 1998). Since the experimental group intervention was not successful it was not possible to test for mediators at follow-up. Although the intervention was successful for the wait-list control group, follow-up data were not collected. Therefore it is possible that locus of control could have acted as a mediator for the wait-list control group at follow-up.

5.1.5: Supplementary question 4

What factors impact on the success of the intervention from the views of the participants?

The themes factors which supported the running of the group, benefits of the group intervention and factors which made the group more difficult will be discussed.

5.1.5.1: Factors which supported the running of the group

The factors which supported the running of the group, identified by children across both experimental and wait-list control conditions will be discussed, including consistency within the group, being supported by others, being rewarded and having a variety of activities on offer.

5.1.5.1.1: Consistency

The children seemed to benefit from the consistency provided by having the same adults each week facilitating the group as well meeting with the same group of children each week. Consistency in group members could be seen to link with the development of group cohesion which has positive effects on group outcomes (Letendre & Davis, 2004). A lack of consistency in the members attending the group would certainly not support the development of a cohesive group. The consistency of the group facilitator could play an important factor in the development of the therapeutic relationship between the facilitator and the children. Research suggests that the strength of the therapeutic relationship is

likely to affect the treatment outcome (Lambert & Barley, 2001; Lochman, 1985).

5.1.5.1.2: Being supported by others

The group seemed to provide a supportive environment for the children. It was acknowledged by the children within the group that they were able to offer each other support within the group intervention sessions and outside of them. The children identified that they received support for their difficulties managing their anger from a number of sources. These included, friends, school staff and parents, although this support did not generally include any specific support for the strategies and ideas undertaken within the sessions. Olweus (1993) found that children who took part in cooperative learning groups were more likely to demonstrate helpfulness and acceptance towards one another. Yalom (1995) links participant's feelings of warmth and support in group counselling to group climate, with the development and maintenance of a positive group climate being linked to positive outcomes in group interventions (Kivlighan and Jauquet, 1990; Kivlighan and Tarrant, 2001). This highlights the importance of a supportive group environment for successful outcomes.

5.1.5.1.3: Being with friends

A further theme which may relate to the development of group climate and cohesion is being with friends. Nickerson and Coleman (2006) identify group cohesion and climate as positively impacting on group therapeutic interventions. The children indicated that they liked being with their friends in the group for a variety of reasons. These reasons included that they would be lonely if they

were by themselves engaging in an individual intervention or if they were in a group without children they knew. This supports the use of a group intervention for primary age children, who may find it difficult to engage in an individual therapeutic intervention without the support of their friends or peers. This highlights the need to think carefully about the children who are in the group and even if it is not possible to choose children who are friends, to provide opportunities for the children to get to know each other prior to starting the group.

5.1.5.1.4: Being rewarded

The children responded very positively to the praise and rewards given in the group for desirable behaviour. Humphrey et al. (2008) identified effective implementation of groups for Social and Emotional Aspects of Learning (SEAL) included providing acknowledgement and reinforcement for positive behaviour. Wodarski, Feldman and Flax (1973) recommended the use of frequent reinforcements for group rules with children who exhibit aggressive behaviour. Letendre and Davis (2004) highlight that positive interactions increase as the result of reinforcement, and that participation in the group is therefore increased. The use of positive reinforcements seems to be integral to the successful running of a CBT based group for anger management.

5.1.5.1.5: Having a variety of activities on offer

The facilitators indicated that the variety of activities involved in the program enabled children to stay interested and engaged. It was highlighted that the use of a variety of different activities catered to children's different learning styles,

not just relying on talking, but allowing children to write or draw things when they wanted to. Rose and Edleson (1987) maintain that presenting interventions in a way which enables children's engagement and motivation to participate are important factors for the effectiveness for cognitive behavioural interventions. In addition, it is important to ensure that activities are developmentally appropriate. Letendre and Davis (2004) outline the need when delivering such interventions to pay attention to how different children learn for example, providing lessons that include stories, role-plays, games and activities relevant to the participants may ensure involvement.

5.1.5.2: Benefits of the group intervention

The children across the experimental and wait-list control groups identified a number of themes related to benefits of being in a group intervention including developing a sense of belonging, knowing others get angry, developing friendships and talking with others.

5.1.5.2.1: Developing a sense of belonging

The facilitators from the intervention indicated that the children benefited from developing a sense of the belonging to the group, with the children forming a cohesive group where they were able to support one another. Crouch, Bloch and Wanlass (1994) identify group cohesion as a group's sense of togetherness and an individual's sense of belonging to the group. Letendre and Davis (2004) link the ability of a group leader to build a cohesive group to positive outcomes of group interventions for reduction of aggressive behaviour. Rose (1998) highlights that when there is high group cohesion, individuals are motivated to

change the behaviours that hinder their relations with others, as well as showing enjoyment for the group and valuing the views of others.

5.1.5.2.2: Knowing others get angry

It was highlighted that it was helpful for the children to know that others get angry and share similar difficulties in managing their anger, which enabled the children to feel better about themselves. This reinforces the importance of enabling children to recognise that anger is a normal emotion experienced by everyone and that they are not alone in their difficulties. Research has highlighted that group CBT interventions have the added benefit of enabling the participants to feel less isolated (Gledhill, Lobban & Sellwood, 1998). It is possible that the children had previously felt isolated from their peers, as a result of feeling that they were the only one to be experiencing anger and difficulties controlling it. This further highlights the benefits of group intervention over individual CBT.

5.1.5.2.3: Developing friendships

The children identified that they thought it was good to meet new people and get to know them and that they had developed new friendships in the group. A number of children highlighted that they were now friends with children that previously they hadn't got along with. Friendships have generally been regarded as positive experiences for children (Parker & Asher, 1993), with being liked acting as a resiliency factor and being disliked acting as a risk factor (Parker & Asher, 1987). Friendships can be seen to act to improve adjustment (Berndt, 2002; Rose & Asher, 2000). Research has indicated that friendships can

improve feelings of self worth as well as offering support (Asher & Parker, 1989; Bukowski & Hoza, 1989; Sullivan, 1953). The ability of the children in the intervention to develop new friendships has particular significance, since prior research has highlighted that aggressive children are often at risk of rejection by their peers (Coie & Kupersmidt, 1983). Research has found they place high importance on companionship with friends (Grotpeter & Crick, 1996).

5.1.5.2.4: Talking with others

The children indicated that having the opportunity to talk with other children about their experiences and problems had helped them, describing how it was better to talk about things than to keep it to yourself. The children indicated that they often did not have opportunities to talk with other children about their experiences outside of the group. Prior research has highlighted that children valued being able to talk to other people in a group situation (Humphrey and Brooks, 2006; Nickerson & Coleman, 2006), in addition to listening to what other children have to say (Dwivedi & Gupta, 2000).

5.1.5.3: Factors which made running the group more difficult

Factors which made the group more difficult identified by children across both conditions will be discussed. These included the organisation of the group, the children having difficulty talking about anger, mistrusting others in the group, not receiving help outside the group and failure to complete the CBT homework.

5.1.5.3.1: Organisation of the group

The organisation of the group within school posed a number of difficulties in terms of freeing up the staff to co-facilitate the groups, fitting the groups around certain lessons, other special activities, trips and school holidays, in addition to finding the appropriate space to hold the group. Research undertaking CBT group interventions in schools has highlighted similar difficulties in trying to organise such groups. Squires (2001) outlines the particular difficulties posed in trying to free up staff members, to run groups in a school based intervention run by an educational psychologist.

Ginsburg, Becker, Newman Kingery and Nichols (2007) highlight some of the particular difficulties running CBT interventions in schools. These included the resistance of school staff to the delivery of therapy in schools. Ginsburg et al. (2007) indicated that many staff view school solely as a place for academic learning and worry about children missing their academic lessons. Ginsburg et al. (2007) highlight the difficulties experienced trying to engage parents with information sessions. Ginsburg et al. (2007) point to the need to remain flexible in the scheduling of sessions to fit with the school calendar, making reference to the shortening of therapy sessions to fit in with lessons and scheduling to fit around exams, school trips and other activities.

5.1.5.3.2: Difficulty talking about anger

The children often found it difficult to talk about their emotions, including anger. This theme is supported by the research interviews undertaken by Humphrey and Brooks (2006), who found that the young people found it difficult to talk

about their feelings within the group. Humphrey and Brooks (2006) outlined that the difficulties in sharing seemed to relate to feelings of vulnerability, connected to opening up to others. This demonstrates the need to ensure the children feel that the group situation is safe and supportive. It is important that the children can talk without being criticised or worrying that their feelings will be shared outside of the group.

5.1.5.3.3: Mistrusting others in group

At times the children found it difficult to talk in front of the other children, as they were unsure if the other children would tell others what they had said. As mentioned previously in the sub-theme mutual trust Humphrey and Brooks (2006) found that trust was linked to the extent to which participants felt they were able to share their experiences. This further reinforces the need to create an environment where the need for confidentiality is understood by all and that the children are sure that this confidentiality will be kept.

5.1.5.3.4: Lack of help outside group

It was widely identified in the interviews that the children did not get help from outside of the group from either parents or school staff with the ideas and strategies learnt in the group. Letendre & Davis (2004) highlight the need to gain parenting and teacher collaboration and that by understanding the concerns of adults within the community, this can help the development of skills which have real life relevance. Shucksmith, Summerbell, Jones & Whittaker (2007) indicated that working with parents was essential to ensure the most effective intervention, since parents can then support and reinforce the ideas at home.

A number of studies have found that the effects of an intervention increases when parents and teachers are involved with the program (Reid, Webster-Stratton & Hammond, 2003; Webster-Stratton & Reid, 2003; Webster-Stratton, Reid & Hammond, 2001; Webster-Stratton, Reid & Hammond, 2004). Interventions which have involved teacher training have shown positive outcomes (Reid, Webster-Stratton & Hammond, 2003; Webster-Stratton & Reid, 2003; Webster-Stratton, Reid & Hammond, 2001; Webster-Stratton, Reid & Hammond, 2004). As a result of intervention programs which involved teachers and parents, there were changes in teacher attitudes and behaviour towards the children, in addition to improvement in relationships between parents and teachers. Letendre and Davis (2004) outline the need to develop interventions which include playground and after school programs to provide opportunities to generalise in real life situations.

5.1.5.3.5: Failure to complete homework

The facilitators highlighted that many of the children did not complete their homework during the course of the intervention. Research has indicated that beneficial impact of homework on CBT outcomes (Addis & Jacobson, 2000; Kazantzis & Lampropoulos, 2002; Sukhodolsky et al, 2004). However, other studies have indicated that homework does not indeed impact on outcomes (Hughes & Kendall, 2007). Research highlights that the failure to complete homework is common in the implementation of CBT (Gaynor, Lawrence & Nelson-Gray, 2006; Sukhodolsky et al., 2000).

5.2: Methodological issues

5.2.1: The intervention

A meta-analysis of interventions for aggressive behaviour highlights a number of difficulties with program implementation (Wilson & Lipsey, 2007) including session attendance, program dropout, turnover of facilitators, and scheduling the sessions. There were a number of factors which affected the implementation of the program, which were identified by the participants of the interviews.

The program is designed to be linked to a whole school approach, which is the rationale for the school information session at the outset. It was apparent that not all schools were following up the work from the intervention and reinforcing the ideas in the wider school environment. In addition the parent information session was designed to enable the parents to follow-up the intervention at home. Few parents attended the information session and of those who did, it was apparent that there was a lack of reinforcement of the ideas at home. Support for the program in schools varied and in a number of schools the co-facilitator did not turn up to all the sessions. Several schools posed difficulties in terms of the organisation of the groups. This included getting consent for the groups, which in some cases took a number of months and arranging times for the groups to take place, for example in one school the group was cancelled on the day, due to a school trip. The schools found it difficult to find a room for the group to take place in, and in a number of schools the room changed each week. There were problems caused by absences from the group, with children

missing sessions due to sickness or holidays and some sessions having to be repeated as such a large number of children were away.

Any lack of significant changes in behaviour may not be as a result of the failure of the intervention, but may be due to difficulties with the program implementation. Although a number of difficulties were experienced with the program implementation these are generally in line with difficulties experienced in previous research (Wilson & Lipsey, 2007). Future research would do well to consider how to combat such organisational difficulties which may impact on the delivery of the intervention.

It has been proposed that conduct problems such as aggressive behaviour are one of the most difficult problems to address (Reid and Eddy, 1997). It has been suggested that single brief interventions such as a short term anger management group aimed at pupils are not able to prevent or address such difficulties (Shucksmith, et al., 2007). A number of researchers (August, Realmuto, Hektner & Bloomquist, 2001; Conduct Problems Prevention Research Group, 2002; Lochman & Wells, 2004) have recognised that since the development of aggressive behaviour is determined by multiple factors, including child, parent and school factors, it is therefore important that intervention programs should target these multiple factors. Therefore interventions which are undertaken to address aggressive behaviour should not only target the individual children but also target the families and teachers of those children. While this intervention did include both teachers' and parents'

information sessions, it would be useful to consider how teacher and parent involvement could be further developed, in addition to the group CBT.

5.2.2: Design

The study was designed to investigate the success of a CBT anger management group post intervention and at a 3 month follow-up. Due to timing of school terms, follow-up data was only collected for the experimental group. It would have been useful to have collected follow-up data for the wait-list control group.

5.2.2.1: Strengths and Difficulties Questionnaire

The results from the Strengths and Difficulties Questionnaire (SDQ) indicated that there were changes in the behaviour of the wait-list control group post intervention only and not for the experimental group. However, semi-structured interviews with children, facilitators and parents indicated that there were indeed positive changes in children's ability to manage their anger and changes in aggressive behaviour for both children in the experimental and wait-list control groups. It therefore could be argued that the SDQ was not a sensitive enough measurement tool to capture the changes in the behaviour of the children.

The SDQ was only delivered to teachers and therefore based on their perceptions of the pupil's behaviour rather than observations of actual behaviour. It could be that there were changes in the children's behaviour, but the perceptions of the teachers did not change. Shucksmith et al. (2007) highlight the difficulty of using teacher ratings in terms of their reliability,

indicating that studies investigating interventions for externalising behaviours have found both 'false positives' and an underestimation of effects in comparison to positive outcomes from other sources. Weisz, Weiss, Han, Granger & Morton (1995) found that teachers are not as likely as others sources to observe changes in children's behaviours.

While the SDQ does have its limitations, it is widely used in research as a measure of behaviour and emotional well-being. The SDQ has been shown to correlate with other measures of behaviour such as the Child Behaviour Checklist (CBCL) (Achenbach and Edelbrock, 1983) and the Revised Rutter Teacher Scale for School Age Children (RRTS) (Rutter,1967), whilst having the additional benefit of being shorter and therefore less time consuming.

Other studies have chosen to triangulate the data from teacher ratings with ratings from parents and children, in addition to observations of children's behaviour (Hemphill & Littlefield, 2006; Humphrey & Brooks, 2006). The SDQ has been widely used as a tool to measure aggressive behaviour in research and the conduct scale does measure aspects of aggressive behaviour. However, alternative measures may give a more accurate measure of anger and aggressive behaviour. Future research could therefore use supplementary questions, for example an additional measure of anger in conjunction with the SDQ.

5.2.2.2: Mediating and moderating factors

The study presented with a number of difficulties in terms of the exploration of mediating and moderating factors. It is only possible to explore mediating factors if the intervention itself is successful. The program had been chosen since it was specifically designed for children aged 7-11 and had been previously evaluated. However, the previous research has featured many limitations and therefore has not provided a robust evidence for the effectiveness of the intervention. It might, therefore, be pertinent to choose a CBT program which had a firm evidence base, before attempting to test out mediating and moderating factors of the intervention.

It was not possible to explore parenting stress as a moderator due to the limited amount of reliable data available. Despite providing multiple opportunities to engage in a parental information session, the sessions were only attended by half of the parents and therefore not all parents completed the questionnaire. Despite the wide use of the Parenting Stress Index (PSI) questionnaire, there were difficulties with the questionnaire itself. The majority of questionnaires were judged to have been answered defensively (in accordance with the PSI manual). Therefore the questionnaires which were completed did not yield reliable information and therefore the results had to be omitted from the analysis.

The completion of the locus of control and Adverse Life Events questionnaires by the children presented a number of difficulties. Consideration was given to the number of questionnaires being delivered as part of the research. However,

since the current study was run in parallel with two other research projects, the children had to complete 4 questionnaires at each time point. Despite offering the children breaks, many of them became tired during the completion of the questionnaires, particularly since the majority of children involved found it difficult to engage in reading or pen and paper tasks. Indeed one of the children interviewed when asked what they would like to change about the intervention, said "do less questionnaires". The MMCPC questionnaire which measured locus of control was particularly long with 48 items, many of which were repetitive and a number of children actually refused to fill this questionnaire in.

The Adverse Life Events questionnaire posed other difficulties for a number of the children, many of whom were confused by the initial questionnaire with two columns asking whether they had experienced the events within the last year or before that. It is apparent that children age 7-11 are often not able to distinguish between what happened in the last couple of months, the last year or before that and many needed a lot of support to complete these questionnaires. Many of the questions had to be explained to the children. This raises the question as to whether the questionnaires were appropriate for children in the 7-11 age group.

Demographic variables such as age, gender and socio-economic status were collected to investigate these variables as moderators of the intervention. The sample of the current study was bigger than many previous studies. However, once the sample had been divided into experimental versus wait-list control and then split by moderator variables, the numbers of children in each category

were limited. Therefore non-significant results for moderating variables could actually be as a result of lack of power due to the study sample size. It was not possible to study interaction of two possible variables due to the sample size, for example exploring whether older girls for example benefited more from the intervention than younger girls or indeed older or younger boys.

Due to unavoidable circumstances, some of the background information collected could not be utilised. Some of the information was not complete for all participants, for example attainment levels for Maths, English and Science, since not all schools undertook SATS exams in these subjects. Due to the areas in which the study was undertaken, the sample included very small numbers of children who differed from the majority on a number of variables, for example on primary language, since the majority of the sample spoke English.

5.2.2.3: Interviews

It was particularly difficult to recruit parents to engage in the interviews with many parents refusing to take part. In all, 3 parents from the experimental group and 1 from the wait-list control group took part. In order to further explore the differential outcomes between experimental and wait-list control groups, it may have been beneficial to interview several more parents of children from the wait-list control group, to make such comparisons. The facilitator interviews were restricted to the facilitators of the experimental group. It would have been useful to have interviewed facilitators from the wait-list control group as well. A number of themes, for example lack of support outside the group, were only identified by the facilitators. Therefore it would have been beneficial to know if

this was something which was experienced by the facilitators of the wait-list control groups as well.

Of the 22 children asked 21 children agreed to participate in the interviews and were able to communicate their views. Interviews were carefully planned and were undertaken by a familiar adult, in a familiar setting. Some children did find it difficult to take part in the interviews and a number of the children were very self conscious, particularly at the prospect of being recorded. This raises the question of whether individual interviews were the most appropriate method for ascertaining children's views of the CBT group. Group interviews could have been undertaken, although they have the disadvantage of not gaining individual views. There is a question as to whether the children would feel confident to speak out in front of the other children, particularly when they felt the other children in the group had made the group less successful. However, it could have been possible to engage the children in an activity to elicit their views, for example through the use of drawing or puppets which could be incorporated into future research trying to gain children's views of CBT.

The group facilitator chose to interview the children, to ensure the children were comfortable in the interview situation. There are however, disadvantages to this, since the children may have altered their responses to provide the interviewer with the answers they felt she wanted to hear. However, since many of the interviews contained negative feedback and it seemed that the children were forthcoming with the things that they did not like about the group, this does not seem to be the case.

The interview schedules used with the experimental and the wait-list control group varied, with the wait-list control schedule having a greater number of questions. The additional questions were either additional prompts used in the original interviews or based on emergent themes from the experimental interviews. Therefore the additional questions included in the wait-list control interviews should not have greatly impacted on the content of the interviews.

The children and parents interviewed were only from one geographical area. The rationale for which was to ensure that the children and parents were comfortable with the interviewer, who was the trainee educational psychologist facilitator in that area. Therefore child and parental views were only collected from 4 of the 12 schools involved in the study. It is therefore possible that the themes which emerged were unique to those groups. It would have been useful to have interviewed additional children and parents from the schools in the other two geographical areas.

5.3: Future research

The results of the current research have highlighted a number of areas which require further study, in addition to a number of methodological issues which should be considered and addressed in future research.

The qualitative analysis has enabled an in depth exploration of the process of the group intervention and has given light to a number of themes, which call for

further research. The theme 'disruptive behaviour' which was identified by the experimental groups could be could be further explored to see whether the occurrence of disruptive behaviour within the sessions impacts on group outcomes. Further research which explores whether disruptive behaviour harms group processes, including the development of group climate and group cohesion, would be useful, particularly since such group processes have been linked to positive outcomes for group therapy.

Since many of the themes identified during the interviews could possibly be linked to the development of group cohesion and group climate, it would be useful to explore such themes, such as being with friends and how they impact on the development of group cohesion and group climate. It would be beneficial to further explore how such group processes impact on group outcomes post intervention.

It would seem pertinent to measure such emotional skills as the ability to trust others and demonstrate empathy at the outset and end of the intervention. It would be beneficial to explore whether some children were indeed more trusting and more able to demonstrate empathy and how this affects their response to the intervention. It would also be pertinent to explore whether the intervention itself helped the children develop such emotional skills.

The current research has identified a number of school factors which need to be explored further. These school factors include the amount of support children receive outside of the intervention, but also other classroom or school related

variables, such as whole school or class support for emotional literacy, school and class behaviour management policies, consistency of the implementation of behaviour management strategies and the quality of teacher-child relationships. It would be valuable to monitor the follow-up and support which is provided to the individuals within school by staff and at home by parents, to ascertain whether this support impacts on outcomes post intervention.

Future research needs to continue to explore the mechanisms through which CBT is successful. There needs to be additional research to explore the impact of locus of control as a mediating factor on CBT, particularly looking at changes in locus of control at follow-up. It would be useful to undertake an exploration of the improved ability to identify triggers and consequences as a result of the intervention and whether this acts as a mediating factor for positive outcomes.

Future research should consider aspects of research design, including the use of instruments, particularly thinking about the triangulation of data. The collection of questionnaires from multiple respondents or using observation in addition to questionnaire data would help overcome difficulties, particularly in relation to teacher perceptions of children's behaviour. It would be sensible to limit the number of questionnaires delivered to children aged 7-11, particularly since some children quickly lost interest.

This piece of research has provided further insight into the views of the participants of CBT. Nevertheless, there remains a need for research to consider the views of participants and engage them in the evaluation of

interventions in which they are involved. Although this research has demonstrated that is possible to ascertain children's views through the use of questionnaires and interviews, future research could further develop the methods through which the children's views of CBT and therapeutic group interventions are gained.

While this piece of research has added to the study of CBT based on group interventions with the children, it would be beneficial to explore the use of multi-component programs which include CBT, in addition to intervention elements targeted at both parents and teachers.

5.4: Implications for practice

The implications for practice will draw on the results of quantitative analysis and themes identified through interviews with the children, facilitators and parents.

The research suggests that CBT based anger management groups can might be effective in helping children manage their anger. The research interviews identified a number of areas which need to be considered in relation to the effective organisation and implementation of such a therapeutic intervention and group work in general.

Although the children in the intervention felt they were supported by others at school and at home, it seems that this support did not include follow-up of the ideas from the intervention. It appears that many of the schools and parents of the children engaged in the program were looking for a 'quick fix' from an

external agency, to improve the child's behaviour. However within the wider context of the schools and the family, there were often factors which further reinforced these behaviours. It is therefore crucial for those intending to run such group interventions to consider how to engage school staff and parents to reinforce the ideas from the intervention. Supporting the children with the strategies learnt during the group would help them generalise these to the wider school and home settings. It is important that such interventions engage parents and school staff in such a way that enables them to recognise how contextual factors can impact on the children's behaviour and how they themselves can make changes which will help the children.

A number of children indicated that they did not know why they had been chosen for the group and what the group would entail, in addition to feeling nervous about attending the group at the outset. Humphrey and Brooks (2006) identified that a significant amount of time was spent during a group anger management intervention explaining to participants why they were there. Humphrey and Brooks (2006) proposed that either the intervention had not been explained well at the outset or that, despite a comprehensive explanation being given, the participants found it difficult to recognise that they needed help with their anger.

This highlights the need for quality information to be provided to children involved in such interventions in advance. Such information should include explanations about why it might be helpful for them to come to such a group and what the group might entail. It is important to consider whether the

participants are ready to engage in such a group and children should be given the choice as to whether they attend.

Research has highlighted the negative impact of bringing aggressive children together for group interventions, indicating that such groups may act to reinforce the aggressive behaviour (Dishion et al, 1999). A number of the children within this study indicated that they would have liked to change the children in the group to enable them to learn better. A number of facilitators suggested that the inclusion of positive role models would have been beneficial. It is therefore important to consider the children that are chosen for such an intervention, including the choice of role models for such groups. It is worth considering whether group interventions are appropriate for all children; during the interviews it was highlighted that an individual approach may have been preferred by some of the children. However this study has highlighted a great number of additional benefits of group interventions over individual therapy.

A number of children identified that they would like to change the setting in which the intervention took place. In an evaluation of small group work for Social and Emotional Aspects of Learning, Humphrey et al. (2008) identified that it is important to provide an appropriate setting for small group work to promote successful outcomes. Careful consideration needs to be given to the space in which such an intervention takes place, the children themselves identified the need for a big room and that the room needed to be private, where there would not be interruptions.

The children were positive towards the groups indicating that they liked coming to the group, that they enjoyed the group and found the activities fun. Humphrey et al. (2008) point to the importance of creating a sense of enjoyment and fun in group activities. This highlights the need to ensure activities included in therapeutic interventions are carefully planned to make sure they are motivating and enjoyable.

A number of interview participants indicated that it may be beneficial for the intervention to be longer in length. This was supported by a number of children who stated that they did not want the intervention to end and would have preferred for it to carry on. A 6 week intervention is a very short term intervention. Adi, Kiloran, Janmohamed and Stewart-Brown (2007) state that emotional difficulties require an intervention of 8 weeks duration, with 1 or 2 sessions a week. Whereas externalising or conduct problems such as anger and aggressive behaviour require an even longer program and even more intensive work. Therefore improved results may be seen if interventions are more extensive with a greater number of sessions to reinforce concepts. This highlights that it may be beneficial to extend the number of sessions delivered. It would be useful to provide follow-up sessions delivered by school staff, in addition to careful consideration being given to the ending of the group.

5.4.1: Contribution of the current study

This research will add to the growing evidence base for interventions to improve emotional well-being and behaviour in children and young people. Specifically the current research suggests that a CBT group to could help improve

emotional well-being and behaviour. However, on a professional level a number of issues need to be considered to which might impact on its success. This study further adds to the understanding of the predictive factors and the processes through which CBT produces successful outcomes. This research has further contributed to the limited research which has explored participants' experiences of CBT.

5.4.2: Contribution to the practice of educational psychology

The current study has contributed to the practice of educational psychology in relation to developing an understanding of what makes effective therapeutic group interventions in schools. Specifically, it has added to the knowledge factors which support the delivery of CBT based groups with children experiencing emotional and behavioural difficulties. This research study has highlighted that group CBT can be an effective use of educational psychologists' time, since it is able to achieve positive outcomes in a more cost effective manner than individual therapy. The current study however, has highlighted a range of factors which need to be considered by educational psychologists faced with planning interventions with children with emotional and behavioural difficulties in schools. While the research highlighted that the therapeutic group intervention seemed to impact on the behaviour of some children as rated by the class teachers, this was not true for all children. This therefore raises the questions as to whether a therapeutic intervention would be the best course of action for all children.

Research has indicated that educational psychologists are valued for their unique ability to approach work in schools from a consultative, interactionist and eco-systemic perspective (Ashton & Roberts, 2006). From an eco-systemic and interactionist perspective, children can be viewed as operating within the complex systems of school, family and their wider environment and their behaviour is viewed as an interaction between the individual child and their situation. Therefore interventions which address these complex systems and are able to address these behaviours within the situations in which they are occur, may be a more appropriate course of action, over a therapeutic intervention. It therefore remains to be seen whether the delivery of a therapeutic intervention is the most effective use of an educational psychologist's time, when trying to work with children with emotional and behavioural difficulties. Consultation, which adopts an interactionist and eco-systemic approach working with the adults within those systems, such as the class teacher and parents, may provide better outcomes for children. Therapeutic groups may be best placed to be delivered as part of a broader consultative approach to work with families and school, which therefore continues to address wide environmental and systemic factors which may impact and reinforce a child's behaviour or anger management difficulties.

Educational psychologists have a key role to play in supporting schools to decide the most appropriate interventions for children with emotional and behavioural difficulties. Through consultation with school staff and parents, it may become apparent that there are environmental factors which are acting to trigger or reinforce a child's apparent behaviour difficulties, for example

inconsistencies in the implementation of the whole school behaviour policy, different messages being given by home and school about appropriate behaviour or adults utilising confrontational and authoritarian behaviour management styles. Through such discussions it may become evident that the child does indeed already possess skills to enable them to manage their emotional and behavioural responses in some contexts and it may in fact be more appropriate to work with the class teacher and the parents to address environmental factors rather than working with the individual child.

This piece of research has drawn attention to a number of issues to consider when running therapeutic groups, once such an intervention has been identified as the most appropriate way forward. These include the organisation of therapeutic groups in schools, the importance of engaging parents and school staff in supporting the intervention, identifying the pupils who would benefit from such an intervention to develop skills to manage their emotional and behavioural responses and developing a positive group climate and group cohesion. Educational psychologists have a role to play both in the running of such therapeutic groups, but also in supporting schools to implement such group interventions successfully. In addition, this piece of research has added to the research exploring children's view of CBT, which will be of particular interest to educational psychologists, who place eliciting and listening to the views of children as integral to their role.

5.5: Mode of dissemination

The research has been commissioned by the local authority for which I work and findings from the research will be formally reported to the County Research and Development Steering Group. This research links with the educational psychology national research priority "under what circumstances might social skills, self esteem or anger management groups in schools prevent exclusion?". This completed thesis will be made available to other education professionals including educational psychologists through a variety of channels. These will include availability in the Institute of Education library and a research library within the educational psychology service which I work. The author also intends to write up the results of the current research, in conjunction with the trainee educational psychologist colleagues who collaborated in the running of the anger management groups, with the view to publishing an article for wider dissemination,

5.6: Conclusion

Central to this piece of research was exploring the views of the children who participated in the group CBT intervention. This study has demonstrated that not only is it possible to gain children's views of such intervention, but that children are able to offer a valuable insight into the factors which impact on an intervention's effectiveness, with many of the themes from the children's interviews were supported by the adults who were interviewed.

The current research demonstrates that a CBT based anger management group run by trainee educational psychologists can impact on the ratings of

children's behaviour made by their teachers and therefore suggests it can be an effective means of supporting children to manage their anger. The research draws attention to a number of factors which need to be considered in the implementation of such a therapeutic group intervention, including a range of child, school and group factors. It seems that individual child factors such as age have a bearing on the success of such an intervention, as well as potential school factors such as the level of deprivation of the area in which the school is based, academic success of the school and the follow-up of the intervention within the school. A number of themes within the interviews could be linked to the development of group climate and cohesion, and it would seem that differences between the experimental and wait-list control groups in outcomes could be attributed to group processes. It would appear that close adherence to an apparently effective program is not enough to ensure the success of the intervention and close consideration needs to be paid to the development of group cohesion and managing group processes.

This research has further added to the limited research evaluating interventions to explore CBT based group interventions for anger and aggressive behaviour. It has provided further clarification of some of the factors which predict the success of such an intervention and has highlighted a variety of factors which require further exploration in future research. The current study has highlighted a number of implications for the practice of educational psychologists running and supporting CBT based group interventions and therapeutic group interventions in general.

References

Abidin, R.R. (1995). *Parenting Sress Index (PSI)* (3rd ed.). Odessa: Psychological Assessment Resources, Inc.

Achenbach, T.M. & Edelbrock, C.S. (1983). *Manual for the Child Behavior Checklist and Revised Child Behaviour Profile*. Burlington, VT: University of Vermont.

Addis, M.E. & Jacobson, N.S. (2000). A closer look at the treatment rationale and homework compliance in cognitive behavioral therapy for depression, *Cognitive Therapy and Research 24*, 313–326.

Adi, Y., Kiloran, A., Janmohamed, K. & Stewart-Brown, S. (2007). *Systematic review of the effectiveness of interventions to promote mental wellbeing in primary schools.* Retrieved 07.03.2009. http://www.nice.org.uk/nicemedia/pdf/MentalWellbeing WarwickUniReview.pdf

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) Washington: American Psychiatric Association.

Armelius. B-Å., Andreassen, T.H. (2007). Cognitive-behavioral treatment for antisocial behavior in youth in residential treatment. *Cochrane Database of Systematic Reviews*, 4. Retrieved 19.04.2008. http://www.cochrane. org/reviews/en/ab005650.html.

Asher, S.R. & Parker, J.G. (1989). The significance of peer relationship problems in childhood. *Social Competence in Developmental Perspective*, 5-23.

Ashton, R. & Roberts, E. (2006) What is valuable and unique about the Educational Psychologist? *Educational Psychology in Practice 22, 2, 111–123.*

August, G.J., Realmuto, G.M., Hektner, J.M. & Bloomquist, M.L. (2001). An integrated components preventive intervention for aggressive elementary school children: The Early Risers program. *Journal of Consulting and Clinical Psychology*, 694, 614-626.

Backenstrass, M., Schwarz, T., Fiedler, P., Joest, K., Reck, C., Mundt, C. & Kronmueller, K. (2006). Negative mild regulation expectancies, self-efficacy beliefs, and locus of control orientation: moderators and mediators of change in the treatment of depression? *Psychotherapy Research, 16 (2),* 250-258.

Barbui, C., Butler, R., Cipriani, A., Geddes, J., & Hatcher, S. (2007). Depression adults (drug and other physical treatments): Cognitive Therapy. *British Medical Journal: Clinical Evidence.* Retrieved 19.04.2008. http://clinical evidence.bmj.com/ ceweb/conditions/meh /1003/1003_I10.jsp

Beck, R. & Fernandez, E. (1998). Cognitive-behavioural therapy in the treatment of anger: a meta-analysis, *Cognitive Therapy Research. 22*, 63-74.

Bennett, D.S. & Gibbons, T.A. (2000). Efficacy of child cognitive-behavioral interventions for anti-social behaviour: A Meta-analysis. *Child and Family Behavior Therapy,* 22(1).

Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science, 11*, 7- 10.

Beynon, S., Soares-Weiser, K., & Woolacott, N. (2008). Psychosocial interventions for the prevention of relapse in bipolar disorder: Systematic review of controlled trials. *British Journal of Psychiatry, 192 (1).*

Bison, J., Ehlers, A., & Matthews, R. (2007). Psychological treatments for chronic post-traumatic stress disorder: Systematic review and meta-analysis. *British Journal of Psychiatry, 190 (2).*

Blake, C.S. & Hamrin, V. (2007). Current approaches to the assessment and management of anger and aggression in youth: a review. *Journal of Child and Adolescent Psychiatric Nursing,* 20 *(4),* 209-221.

de Boer, M.J., & Versteegen, G.J. (2006). A cognitive-behavioural group intervention for chronic pain patients: First Findings. *Gedrangstherapie. 49 (3),* 157-169.

Bolton, D. (2004). Cognitive Behaviour Therapy for children and adolescents: Some theoretical issues. In P.J. Graham (Ed.). *Cognitive Behaviour Therapy for children and families (pp 9 -24).* Cambridge: Cambridge University Press.

Braet, C., Meerschaert, T., Merlevede, E., Bosmans, G., Van Leeuwen, K. & De Mey, W. (2009). Prevention of antisocial behaviour: Evaluation of an early intervention programme. *European Journal of Developmental Psychology, 6 (2),* 223 — 240.

Brand, A.H. & Johnson. J.H. (1982). Note on reliability of the life events checklist. *Psychology Reports 50,* 12 -74.

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

Bukowski, W. M., & Hoza, B. H. (1989). Popularity and friendship: Issues in theory, measurement, and outcomes. In T. Berndt & G. Ladd (Eds.), *Peer relations in child development (pp. 15-45).* New York: Wiley.

Cartwright-Hatton, S., Roberts, C. & Prathiba, C. (2004) Systematic Review of the efficacy of cognitive behaviour therapies for childhood and adolescent anxiety disorders, *British Journal if Clinical Psychology,* 43(4), 421-436.

Coddington, R.D. (1972a). The significance of life events as etiologic factors

in the diseases of children: A survey of professional workers. *Journal of Psychosomatic Research, 16,* 7-18.

Coddington, R.D. (1972b). The significance of life events as etiologic factors in the diseases of children: II. A study of a normal population. *Journal of Psychosomatic Research, 16,* 205-213.

Coie, J. D., & Kupersmidt, J. B. (1983). A behavioral analysis of emerging social status in boys' playgroups. *Child Development*, 54, 1400-1416.

Collishaw, S., Goodman, R., Pickles, A., & Maughan, B. (2007). Modelling the contribution of changes in family life to time trends in adolescent conduct problems. *Social Science and Medicine*, *65 (12)*, 2576-2587.

Compton, S.N., March, J.S., Brebt, D. Albano, A, V., Weersing, R. & Curry, J. (2004). Cognitive-behavioral psychotherapy for anxiety and depressive disorders in children and adolescents: an evidence-based medicine review. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43 (8) 930-959.

Conduct Problems Prevention Research Group. (2002) Evaluation of the first 3 years of the fast track prevention trial with children at high risk for adolescent conduct problems. *Journal of Abnormal Child Psychology, 30(1)*, 19-35.

Connell, J.P (1985). A new multidimensional measure of children's perceptions of control. *Child Development, 56(4),* 1018-1041.

Coppock, C. & Dwivedi, K.N. (1993). Group work in schools. In K.N. Dwivedi (Ed.) *Group work with children and adolescents.* London: Jessica Kingsley.

Craig, A. Hancock, K., Chang, E. & Dickson, H. (1998). The effectiveness of group intervention for enhancing perceptions of control following spinal cord injury. *Australian and New Zealand Journal of Psychiatry, 32,* 112-118.

Crandall, V. C., Katkovsky, W., & Crandall, V. J. (1965). Children's beliefs in their control of reinforcements in intellectual academic achievement behaviors. *Child Development, 36,* 91–109.

Crouch, E. C., Bloch, S., & Wanlass, J. (1994). Therapeutic factors: Interpersonal and intrapersonal mechanisms. In A. Fuhrman & G. M. Burlingame (Eds.), *Handbook of group psychotherapy* (pp. 269-315). New York: Wiley.

DCSF. (2007). *The children's plan: Building brighter futures – summary.* Norwich: The Stationary Office.

Deffenbacher, J. L. (1999). Cognitive-behavioural conceptualisation and treatment of anger, *Journal of Clinical Psychology, 55,* 295–309.

Deffenbacher, J., Dahlen, E., Lynch, R., Morris, C. & Gowensmith, W. (2000). An application of Beck's cognitive therapy to general anger reduction. *Cognitive Therapy and Research. 24*, 689-697.

DfES. (2004). *Every Child Matters: Change for Children*. Nottingham: DfES Publications. http://publications.everychildmatters.gov.uk/eOrderingDownload/ DfES10812004.pdf.

DfES (2004) National *Service Framework for Children, Young People and Maternity Services: An Executive Summary*. http://www.dh.gov.uk/en/ Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_408 9100.

DfES (2005) *Excellence and Enjoyment: Social and Emotional aspects of learning (SEAL)*. http://nationalstrategies. standards.dcsf.gov.uk/primary/ publications/banda/seal/

Dishion, T.J., & Andrews, D.W. (1995). Preventing escalation in problem behaviors with high-risk adolescents: immediate and 1-year outcomes. *Journal of Consulting and Clinical Psychology,* 63, 538-548.

Dishion, T.J., McCord, J., & Poulin, F. (1999). When interventions harm, peer group and problem behaviour. *American Psychologist, 54*, 755-764.

Dobson, K.S. & Dozois, D.J. (2001). Historical and philosophical bases of the cognitive-behavioral therapies. In K.S. Dobson, (Ed.), *Handbook of cognitive-behavioral therapies* (2nd ed.), Guilford Press, New York (2001), pp. 3–39.

Dodge, K.A. (1980). Social cognition and children's aggressive behavior. *Child Development,* 51, 162-170.

Dodge, K. A., Pettit, G. S., McClaskey, C. L., & Brown, M. M. (1986). Social competence in children. *Monographs of the Society for Research in Child Development, 51(2),* 1 - 85.

Dodge, K. A., & Crick, N. R. (1990). Social information-processing bases of aggressive behavior in children. *Personality and Social Psychology Bulletin*, *16*, 8–22.

DoH & DfES. (2004). *The National Service Framework: An executive summary*. London: DH Publications.

Dumas, J.E. & Wahler, R.G. (1983). Predictors of treatment outcome in parent training: mother insularity and socioeconomic disadvantage. *Behaviour Assessment, 5*, 301-313.

Durlak, J. A., Fuhrman, T., & Lampman, C. (1991). Effectiveness of cognitive-behavior therapy for maladapting children: A meta-analysis. *Psychological Bulletin*, *110*, 204–214.

Durlak, J. A., Wells, A. M., Cotten, J. K., & Johnson, S. (1995). Analysis of selected methodological issues in child psychotherapy research. *Journal of Clinical Child Psychology, 24(2),* 141–148.

Dwivedi, K. & Gupta, A. (2000). 'Keeping cool': anger management through group work. *Support for Learning, 15 (2),* 76-81.

Edwards, M.C., Schulz, E.G., Long, N. (1995). The role of the family in the assessment of attention deficit hyperactivity disorder. *Clinical Psychology Review, 15,* 375-394.

Enright, R. D. & Fitzgibbons, R. P. (2000). Forgiveness in marital and family relationships, in R. D. Enright & R. P. Fitzgibbons (Eds.) *Helping clients forgive: an empirical guide for resolving anger and restoring hope. (pp.* 193–214) .Washington DC: American Psychiatric Association.

Farrell, P., Woods, K., Lewis, S., Rooney, S., Squires, G. & O'Connor, M. *(2006). A review of the functions and contribution of Educational Psychologists in England and Wales in light of "Every Child Matters: change for children".* London: DfES.

Faupel, A., Herrick, E., & Sharp, P. (1998). *Anger management: A practical guide.* London: David Fulton.

Feldman, R.A., Caplinger, T.E., & Woodarski, J.S. (1983) *The St .Louis conundrum: the effective treatment of anti-social youth.* Eaglewood Cliffs, NJ: Prentice Hall.

Finch, A.J., Saylor, C.F., & Nelson III, W. M. (1987). Assessment of anger in children. In R. J. Prinz (Ed.). *Advances in behavioral assessment of children and families, Volume 3. (pp. 235–65).* Greenwich: JAI Press.

Fox, M. (2003). Opening Pandora's Box: evidence-based practice for educational psychologists. *Educational Psychology in Practice, 19 (2),* 91-102.

Gallagher, H.M., Rabian, B.A. & McCloskey, M.S (2004). A brief group cognitive-behavioral intervention for social phobia in childhood. *Journal of Anxiety Disorders*, 18 (4), 459-479.

Gaynor, S.T., Lawrence, P.S. & Nelson-Gray, R.O. (2006). Measuring homework compliance in cognitive-behavioral therapy for adolescent depression: Review, preliminary findings and implications for theory and practice. *Behavior Modification, 30,* 647-672.

Ginsburg, G.S., Becker, K.D., Newman Kingery, J. & Nichols, T. (2008). Transporting CBT for childhood anxiety disorders into inner-city school-based mental health clinics. *Cognitive and Behavioral Practice, 15*, 148–158

Gledhill, A., Lobban, F. & Sellwood, W. (1998).Group CBT for people with schizophrenia: A preliminary evaluation, *Behavioural and Cognitive Psychotherapy*, 26, 63–75.

Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38,* 581-586.

Grotpeter, J. K. & Crick, N.R. (1996). Relational aggression, overt aggression, and friendship. *Child Development, 67*, (5), 2328-2338.

Hampton, R., Oliver, W., & Magarian, L. (2003). Domestic violence in the African American community: an analysis of social and structural factors, *Violence Against Women,* 9, 533-557.

Hemphill, S.A & Littlefield, L. (2006). Child and family predictors of outcome for children with behavioural and emotional problems. *Child Psychiatry and Human Development, 36 (3),* 329-349.

Hudley, C., & Graham, S. (1993). An attributional intervention to reduce peer-directed aggression among African-American boys. *Child Development*, *64,* 124–138.

Hughes, A.A. & Kendall, P.C. (2007). Prediction of Cognitive behavior treatment outcome for children with anxiety disorders: Therapeutic relationship and

homework compliance. *Behavioural and Cognitive Psychotherapy*, 35 (4), 487-494.

Humphrey, N., Kalambouka, A., Bolton, J., Lendrum, A., Wigelsworth, M., Lennie, C. & Farrell, P. (2008). *Primary social and emotional aspects of learning (SEAL): Evaluation of small group work.* London: DCSF.

Humphrey, N. & Brooks, G.A. (2006). An evaluation of a short cognitive behavioural anger management intervention for pupils at risk of exclusion *Emotional and Behavioural Difficulties Vol. 11, (1),* 5–23.

Hunot, V., Churchill, R., de Silva, L.M., & Teixeira, V. (2007). Psychological therapies for generalised anxiety disorder. *Cochrane Database Systematic Review,* 24(1). .http://www.ncbi.nlm.nih.gov/pubmed/17253466 ?ordinalpos =2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RV DocSum

Jayson, D., Wood, A., Kroll, L., Fraser, J. & Harrington, R. (1998). Which depressed patients respond better to cognitive-behavioral treatment? *Journal of American Academy of Child and Adolescent Psychiatry, 37 (1), 35-39.*

James, A., Soler, A., & Weatherall, R. (2005) Cognitive behavioural therapy for anxiety disorders in children and adolescents. *Cochrane Database of systematic reviews*, 4. Retrieved 28.04.08 from Pub Med.

Kassinove, H.K., & Sukholdosky, D.G. (1995). Anger disorders: Basic science and practice issues. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis, and treatment (pp.1-26).* Washington, DC: Taylor & Francis.

Kastner, J.W. (1998) Clinical change in adolescent aggressive behaviour: a group therapy approach. *Journal of Child and Adolescent Group Therapy, 8 (1),* 23- 33.

Kasvikis, Y., Scaloubaca, D. & Mitskidou, P. (2003). Effects of exposure treatment on locus of control attributions in agoraphobics, *Psychiatiki, 14 (3),* 191-199.

Kazantzis, N., & Lampropoulos, G.K. (2002). Reflecting on homework in psychotherapy: What can we conclude from research and experience? *Journal of Clinical Psychology, 58,* 577–585.

Kazdin, A.E. (1993). Psychotherapy for children and adults: current progress and future directions. *American Psychologist,* 48, 644-657.

Kazdin, A.E. (1995). Child, parent and family dysfunction as predictors of outcome in cognitive-behavioural treatment for anti-social children. *Behaviour Research Therapy,* 33, 271-281.

Kazdin, A.E. (1997). Practitioner Review: Psychological treatments for conduct disorder in children. *Journal of Child Psychology and Psychiatry. 38 (2),* 161-178.

Kazdin, A.E., Bass, D., Siegel, T., & Thomas, C. (1989). Cognitive-behavioral therapy and relationship therapy in the treatment of children referred for antisocial behavior. *Journal of Consulting Clinical Psychology, (57),* 522–535.

Kazdin, A.E. & Crowley, M.J. (1997) Moderators of treatment outcome in cognitively based treatment of antisocial children. *Cognitive Therapy and Research,* 21 (2), 185-207.

Kazdin, A., Esveldt -Dawson, K., French, N., & Unis, A. (1987). Effects of parent management training and problem-solving skills training combined in the treatment of antisocial child behavior. *Journal of the American Academy of Child and Adolescent Psychiatry, 26,* 416-424.

Kazdin, A.E. & Whitley, M.K. (2003). Treatment of parental stress to enhance therapeutic change among children referred for aggressive and antisocial behaviour. *Journal of Consulting and Clinical Psychology, 71 (3),* 504-515.

Kendall, P.C., & Choudhury, M.S. (2003). Children and adolescents in cognitive–behavioral therapy: Some past efforts and current advances and the challenges in our future. *Cognitive Therapy and Research, 27(1),* 89–104.

Kendall, P. C., & MacDonald, J. P. (1993). Cognition in the psychopathology of youth, and implications for treatment. In K. S. Dobson and P. C. Kendall (Eds.), *Psychopathology and cognition (pp. 387–432).* San Diego: Academic Press

Kendall, P.C. & Panichelli-Mindel., S.M. (1995). *Cognitive-behavioural interventions: theory, research and procedures.* New York: Academic Press.

Kendall, P.C. & Zupan, B.A. (1981). Individual versus group application of cognitive-behavioral self-control procedures with children. *Behavior Therapy, 12,* 344-259.

Kivlighan, D. M., Jr., & Jauquet, C. A. (1990). Quality of group member agendas and group session climate. *Small Group Research, 21*, 205-219.

Kivlighan, D. M., Jr., & Tarrant, J. M. (2001). Does group climate mediate the group leadership–group member outcome relationship? A test of Yalom's hypotheses about leadership priorities. *Group Dynamics*, *5*(4), 220–234.

Kolko, D., Brent, D., Baugher, M., Bridge, J., & Birmaher, B. (2000). Cognitive and family therapies for adolescent depression: Treatment specificity, mediation and moderation. *Journal of Consulting and Clinical Psychology*, *68*, 603-614.

Lambert, M. J., & Barley, D. E. (2002). Research summary on the therapeutic relationship and psychotherapy outcome. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients (pp. 17–32).* Oxford: Oxford University Press.

Larson, J., & Lochman, J.E. (2002). *Helping schoolchildren cope with anger: A cognitive behavioural intervention.* New York: Guildford.

Lefcourt, H.M. (1976). *Locus of control: current trends in theory and research* New Jersey: Lawrence Erlbaum Associates.

Letendre, J., & Davis, K. (2004). Child responses in a school-based violence prevention project. What really happens in violence prevention groups? A content analysis of leader behaviors and child responses in a school-based violence prevention project. *Small Group Research, 35*, 367-387.

Liebsohn, M.T., Oetting, E.R. & Deffenbacher, J.L. (1994) .Effects of trait anger on alcohol consumption and consequences. *Journal of Child and Adolescent Substance Abuse,* 3, 17-32.

Lochman, J. E. (1985). Effects of different treatment lengths in cognitive-behavioral interventions with aggressive boys. *Child Psychiatry and Human Development*, *16*, 45-56.

Lochman, J.E. (1992). Cognitive-behavioural intervention with aggressive boys: three year follow up and preventive effects, *Journal of Consulting Clinical Psychology, 60,* 426–432.

Lochman, J.E (2003). Effectiveness of the coping power program and of classroom intervention with aggressive children: outcomes at a 1 year follow up. *Behavior Therapy*, 34(4), 493-515.

Lochman, J. & Dodge, K. (1994). Social-cognitive processes of severely violent, moderately aggressive, and non aggressive boys. *Journal of Consulting and Clinical Psychology, 62 (2),* 366-374.

Lochman. J., Coie, J., Underwood, M., & Terry, R. (1998). Effectiveness of a social relations intervention program for aggressive and non-aggressive, rejected children. *Journal of Consulting and Clinical Psychology, 61,* 1053-1058.

Lochman, J. E., Lampron, L. B., Gemmer, T. C., Harris, S. T., & Wyckoff, G. M. (1989). Teacher consultation and cognitive-behavioral interventions with aggressive boys. *Psychology in the Schools ,26,* 179-188.

Lochman, J.E. & Wells, K.C. (2004). The Coping Power Program for preadolescent aggressive boys and their parents: Outcome effects at the 1 Year follow-up. *Journal of Consulting and Clinical Psychology, 72(4),* 571-578.

Lochman, J. E., White, K. J., & Wayland, K. K. (1991). Cognitive behavioral assessment and treatment with aggressive children. In P. Kendall (Ed.), *Therapy with children and adolescents: Cognitive behavioral procedures.* New York: Guilford Press.

Loeber, R. (1982). The Stability of Antisocial and Delinquent Child Behavior: A Review *Child Development*, 53, (6), 1431-1446.

Loeber, R. (1990). Development and risk factors of juvenile antisocial behavior and delinquency. *Clinical Psychology Review 10,* 1–41.

Loeber, R. (1996). Developmental continuity, change, and pathways in male juvenile problem behaviors and delinquency. In J.D. Hawkins (Ed.) *Delinquency and Crime: Current Theories*, (pp.1-27). Cambridge: Cambridge University Press.

Loeber, R., and Hay, D.F. (1996). Key issues in the development of aggression and violence from childhood to early adulthood. *Annual Review of Psychology, 48*, 371–410.

Loyd, B.H. & Abidin, R.R. (1985). Revision of the Parenting Stress Index. *Journal of Pediatric Psychology 10 (2),* 169-177.

Mackay, T. (2007). Educational Psychology: The rise and fall of therapy. *Educational and Child Psychology, 24 (1).*

March, J.S., Amaya -Jackson, L., M.C & Schulte, A. (1998). Cognitive-behavioral psychotherapy for children and adolescents with posttraumatic stress disorder after a single-incident stressor. *Journal of the American Academy of Child and Adolescent Psychiatry.* 37(6), 585-593.

Maughan, B. (2001). Conduct disorder in context. In J. Hill & B. Maughan. (Eds.), *Conduct disorders in childhood in adolescence (pp. 169-201).* Cambridge, England: Cambridge University Press.

Maxwell, C., Yankah, E., Warwick, I., Mehmedbegovic, D., & Aggleton, P. (2007). *The emotional wellbeing and mental health of young Londoners- a focused review of evidence*. London: Thomas Coram Research Unit.

McCart, M.R., Priester, P.E., Davies, W. H. & Azen, R. (2006). Differential effectiveness of behavioural parent training and cognitive-behavioural therapy for antisocial youth: a meta-analysis. *Journal of Abnormal Child Psychology,* 34 (4), 527-543.

Meichenbaum, D. (1977). *Cognitive-behaviour modification: an integrative approach.* New York: Plenum.

Metropolitan Area Child Study Research Group. (2002). A cognitive-ecological approach to preventing aggression in urban settings: Initial outcomes for high-risk children. *Journal of Consulting and Clinical Psychology*, 70*(1),* 179-194.

National Institute for Health and Clinical Excellence. (2008). *Promoting children's social and emotional wellbeing in primary education.* London: National Institute for Health and Clinical Excellence.

Nickerson, K. F. (2004). Anger in adolescents: The effectiveness of a brief cognitive –behavioral anger management training program for reducing attitudinal and behavioural expressions of anger. *Dissertation Abstracts International: Section B: The Sciences and Engineering,* 65 (1-B), 425.

Nickerson, A.B. & Coleman, M.N. (2006). An exploratory study of member attraction, climate, and behavioural outcomes of anger –coping group therapy for children with emotional disturbance. *Small Group Research,* 37 (2), 115-139.

Novaco, R. (1975). *Anger control: the development and evaluation of an experimental treatment*, Lexington: Heath.

Novaco, R. (1976). The treatment of anger through cognitive and relaxation controls. *Journal of Consulting and Clinical Psychology, 44,* 681–685.

Nowicki, S., & Strickland, B.R. (1973). A locus of control scale for children. *Journal of Clinical and Consulting Psychology,* 40, 148-154.

Oesterman, K., Bjoerkqvist, K., Lagerspetz, K.M.J., Charpentier, S., Vittorio Capara, G. & Pastorelli, C. (1997). Locus of control and three types of aggression. *Aggressive Behaviour, 25 (1),* 61-65.

Office of the United Nations High Commissioner for Human Rights. (1990). *Convention on the rights of the child.* Retrieved 01.04.2008. http://www2.ohchr.org/english/ law/ crc.htm.

O'Kearney, R.T., Anstey, K.J. & von Sanden, C. (2007). Behavioural and cognitive behavioural therapy for obsessive compulsive disorder in children and adolescents. *Cochrane Database of Systematic Reviews*, 4. Retrieved 18.04.08 from, Pub Med.

Olweus, D. (1993). *Bullying at school: What we know and what we can do.* Cambridge, MA: Blackwell.

Oxford English Dictionary (1989) (2nd ed.) Oxford: Oxford University Press.

Parker, J. G., & Asher, S. R. (1987). Peer acceptance and later personal adjustment: Are low-accepted children "at-risk"? *Psychological Bulletin*, 102, 357-389.

Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29, 611-621.

Parsons, C., Hayden, C., Godfrey, R., Howlett, K. & Marton, T. (2001). Outcomes in secondary education fro children excluded from primary school. *DfEE Research Brief, 271.*

Patterson, G.R (1988). Stress: A change agent for family process. In N. Garmezy & M. Rutter (Eds.), *Stress, coping and development in children* (pp 235-264). Baltimore: John Hopkins University Press.

Patterson, G.R., Reid, J.B., & Dishion, T.J. (1992). *Anti-social boys*. Eugene: Castalia.

Pavuluri, M.N., Graczyk, P.A., Henry, D.B., Carbray, J.A., Heidenreich, J. & Miklowitz, D.J. (2004). Child- and Family- focused cognitive-behavioural therapy for pediatric bipolar disorder: Development and preliminary results. *Journal of the American Academy of Child and Adolescent Psychiatry, 43 (5),* 528-537.

Perkins, D.M (2004). Effect of parenting, emotional intelligence, hostile attributional bias and peer status on problem behaviour. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 64 (11-B),* 5819.

Pepler, D.J., & Rubin, K.H. (Eds.). (1991). *The development and treatment of childhood aggression.* Hillsdale: Erlbaum.

Powell, K.M. (2003). Avoidance of responsibility in conduct disordered adolescents. *Dissertation Abstracts International: Section B: The Sciences and Engineering,* 63 (11B), 5503.

Powell, K, M. & Rosen, L.A (1999). Avoidance of responsibility in conduct disordered adolescents. *Personality and Individual Differences, 27 (2),* 327-340.

Prazeres, A.M., de Souza, W.F., & Fontenell, L.F. (2007). Terapias de base cognitivo-comportamental do trastorno obsessivo-compulsivo: Revisao sistematica da ultima decada. *Revista Brasileira de Psiquiatria, 29 (3).*

Rathod, S., Kingdon, D., & Weiden, P. (2008). Cognitive-behavioural therapy for medication-resistant schizophrenia: A review. *Journal of Psychiatric Practice, 14(1),* 22-33.

Reid, J. B., & Eddy, J. M. (1997). The prevention of antisocial behavior: Some considerations in the search for effective interventions. In D. M. Stoff, J. Breiling, & J. D. Maser (Eds.).*The handbook of antisocial behavior (pp. 343-356).* New York: John Wiley & Sons.

Reid, M. J., Webster-Stratton, C. & Hammond, M. (2003). Follow-up of children who received the Incredible Years intervention for Oppositional-Defiant Disorder: Maintenance and prediction of 2-year outcome. *Behaviour Therapy, 34,* 471-491.

Reinecke, M. A., & Clark, D. A. (2004). *Cognitive therapy across the lifespan: Theory, Research and Practice.* Cambridge: Cambridge University Press.

Rose, S. D. (1998). *Group therapy with troubled youth: A cognitive-behavioral interactive approach*. Thousand Oaks: Sage.

Rose, A.J. & Asher, S.R. (2000). Children's friendships. *Close relationships: A sourcebook*, 47-57.

Rose, S. D., & Edleson, J. L. (1987).*Working with children and adolescents in groups*. San Francisco: Jossey-Bass.

Rotter, J. (1954). *Social Learning Theory and Clinical Psychology*, New York: Prentice-Hall.

Rutter, M. (1967). A children's behaviour questionnaire for completion by teachers: preliminary findings. *Journal of Child Psychology and Psychiatry, 8, 1-11.*

Schechtman, Z., Ben-David, M. (1999). Individual and group psychotherapy of childhood aggression: a comparison of outcomes and process. *Group Dynamics: Theory, Research, Practice,* 3, 263-274.

Shucksmith, J., Summerbell, C., Jones, S. & Whittaker, V. (2007). *Mental wellbeing of children in primary education (targeted/indicated activities).* Retrieved 01.03.2009. http://www.nice.org.uk/nicemedia/pdf/Mental Wellbeing TeesideReview.pdf.

Sharp, P. & Herrick, E. (2000). Promoting emotional literacy: Anger management groups. In N. Barwick (Ed.) *Clinical counselling in schools (pp 124-141).* London: Routledge.

Shepway One Local Children's Services Partnership (2008). Shepway One children and young people's plan 2008- 2011. Retrieved 02.02.2008. http://www.kenttrustweb.org.uk/UserFiles/CW/File/Cluster_Sites/Shepway_1/Shepway_One_Draft_LCSP_Plan1.20.doc

Siegman, A. W. & Smith, T. W. (1994). *Anger, hostility, and the heart*, Hillsdale: Erlbaum.

Smith, P., Yule, W., Perrin, S., Tranah, T., Dalgleish, T. & Clark, D.M. (2007). Cognitive-behavioural therapy for PTSD in children and adolescents: A preliminary randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry,* 46 (8), 1051-1061.

Snyder, K. V., Kymissis, P. & Kessler, K. (1999). Anger management for adolescents: efficacy of brief group therapy, *Journal of the American Academy of Child and Adolescent Psychology and Psychiatry, 38,* 1409–1511.

Squires, G. (2001). Using cognitive behavioural psychology with groups of pupils to improve self-control of behaviour. *Educational Psychology in Practice, 17 (4),* 317-335.

Stoff, D.M., Breiling, J., & Master, J.D. (Eds.) (1997). *Handbook of Anti-social Behaviour.* New York: Wiley.

Sukhodolsky, D. G., Solomon, R. M., & Perine, J. (2000). Cognitive-behavioral, anger-control intervention for elementary school children: A treatment outcome study. *Journal of Child and Adolescent Group Therapy, 10(3),* 159-170.

Sukhodolsky, D. G., Kassinove, H. & Gorman, B. S. (2004). Cognitive-behavioural therapy for anger in children and adolescents: a meta-analysis, *Aggressive and Violent Behaviour, 9,* 247–269.

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* New York: Norton.

Tafrate, R. C. (1995) . Evaluation of treatment strategies for adult anger disorders. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis, and treatment* (pp 109-130) . Washington, DC: Taylor & Francis.

Tarrier, N., Taylor, K., & Gooding, P. (2008). Cognitive-behavioural interventions to reduce suicide behaviour: A systematic review and meta-analysis. *Behaviour Modification, 32 (1).*

Tiet, Q.Q., Bird, H.R., Davies, M., Hoven, C., Cohen, P. & Jensen, P.S. & Goodman, S. (1998). Adverse Life Events and resilience. *Journal of the American Academy of Child and Adolescent Psychiatry.37 (11),* 1191-1200.

The United Nations Children's Fund (2007). *Child poverty in perspective: An overview of child well-being in rich countries: comprehensive assessment of the lives and well-being of children and adolescents in the economically advanced nations.* Florence: UNICEF Innocenti Research Centre.

Waisbren, S.E., Rones, M., Read, C.Y., Marsden, D. & Levy, H.L. (2004). Brief report: predictors of parenting stress among parents of children with biochemical genetic disorders. *Journal of Pediatric Psychology, 29 (7)* 565-570.

Webster-Stratton, C. & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. *Behaviour Therapy,* 21, 319-337.

Webster-Stratton, C., Reid, M.J., & Hammond, M. (2001). Social skills and problem-solving training for children with early-onset conduct problems: Who Benefits? *Journal of Child Psychiatry, 42(7),* 943-952.

Webster-Stratton. C, & Reid, M.J. (2003). Treating conduct problems and strengthening social and emotional competence in young children: The Dina Dinosaur treatment program. *Journal of Emotional and Behavioural Disorders, 11(3)*, 130-143.

Webster-Stratton, C., Reid, M.J. & Hammond, M. (2004). Treating children with early-onset conduct problems: Intervention outcomes for parent, child and teacher training. *Journal of Clinical Child and Adolescent Psychology 33(1),* 105-124.

Weersing, V.R., Weisz, J.R. (2002). Mechanisms of action in youth psychotherapy. *Journal of Child Psychology and Psychiatry. 43 (1)* 3-29.

Weisz, J.R., Weiss, B., Alicke, M.D. & Klotz, M.L. (1987). Effectiveness of psychotherapy with children and adolescents: a meta-analysis for clinicians. *Journal of Consulting and Clinical Psychology, 55 (4),* 542-549.

Weisz, J.R., Weiss, B., Han, S.S., Granger, D.A. & Morton, T. (1995). Effects of psychotherapy with children and adolescents revisited: A meta analysis of treatment outcome studies. *Psychological Bulletin, 117 (3*), 450-468.

Whitworth, J.D, Crownover, B.K., & Nichols, W. (2007). Which non drug alternative can help with insomnia? *The Journal of Family Practice, 56 (10).*

William, S., Weymouth, M., Lipman, E., Mills. B., & Evans, P. (2004). Evaluation of a children's temper-taming program. *Canadian Journal of Psychiatry, 49 (9),* 607-612.

Wilson, S.J. & Lipsey, M.W. (2007) School-based interventions for aggressive and disruptive behaviour. *American Journal of Preventive Medicine. 22 (2),* 130- 143.

Wodarski, J. S., Feldman, R. A., & Flax, N. (1973). Social learning theory and group work practice with antisocial children. *Clinical Social Work Journal*, *1*, 78-93.

Woodcock, C. (Ed.) (2003). *Primary Anger Management, Key Stage Two version: Learning how to deal with out angry feelings.* Southampton Psychology Service: Unpublished.

Yalom, I. (1995). *The theory and practice of group psychotherapy* (4th ed.). New York: Basic Books.

Yeo, L.S., W, M., Gerken, K. & Ansley, T. (2005) Cognitive –behavioral therapy in a hospital setting for children with severe emotional and/or behavioural disorders. *Child Care in Practice,* 11 (1), 7-22.

Appendices

Appendix 1: Parental consent form

Information Sheet for Participants in Research Studies: Parent/Carer

Title of Project: **Promoting emotional literacy in schools**

Name, Address and Contact Details of researcher:

Susanne Watson
Trainee Educational Psychologist
Educational Psychology Service
Queen's House
Guildhall Street
Folkestone
Kent
CT20 1DX

susanne.watson@kent.gov.uk 01303224392

We would like to invite your child to participate in this research project. They should only participate if they want to; choosing not to take part will not disadvantage them in any way. Before they decide whether they want to take part, it is important for you to read the following information carefully and discuss it with them if you wish. Ask us if there is anything that is not clear or you would like more information.

Details of Project

This study aims to investigate whether group sessions can help your child to learn how to manage their anger and emotions.

We would like your child to come along to six group sessions, which will last for 30-40 minutes. In these sessions we will teach them about what causes people to get angry and how to tell when they are angry. We will also teach them ways to respond to situations that make them feel angry and give them a chance to practise these strategies. There may be some additional activities that they could complete outside of these sessions.

There will be a member of school staff in these sessions who will be there to help and support them in case they become upset or need some quiet time.

Project data

We will be collecting some data from questionnaires that we will be asking you to complete. This will be used in our project, but everything that we use will be fully anonymised.

It is up to your child to decide whether or not to take part. If they choose not to participate it will involve no penalty or loss of benefits to which they are otherwise entitled. If they decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If they decide to take part they are still free to withdraw at any time and without giving a reason.

All data will be collected and stored in accordance with the Data Protection Act 1998.

Informed Consent Form for Parent / Carers

(This form is to be completed independently by the parent/carer after reading the Information Sheet and/or having listened to an explanation about the research.)

Title of Project: **Promoting emotional literacy in schools**

Participant's Statement

I .....

agree that I have

- read the information sheet and/or the project has been explained to me orally;
- had the opportunity to ask questions and discuss the study;
- received satisfactory answers to all my questions or have been advised of an individual to contact for answers to pertinent questions about the research and my rights as a participant and whom to contact in the event of a research-related injury.

I understand that I am free to withdraw my child from the study without penalty if I so wish and I consent to the processing of personal information for the purposes of this study only and that it will not be used for any other purpose. I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998.

Signed: Date:

Investigator's Statement

I .....

confirm that I have carefully explained the purpose of the study to the participant's parent / carer and outlined any reasonably foreseeable risks or benefits (where applicable).

Signed: Date:

Appendix 2: Pupil consent form

Information Sheet for Participants in Research Studies: Pupil

Title of Project: **Promoting emotional literacy in schools**

Name, Address and Contact Details of researcher:

Susanne Watson
Trainee Educational Psychologist
Educational Psychology Service
Queen's House
Guildhall Street
Folkestone
Kent County Council CT20 1DX

susanne.watson@kent.gov.uk 01303 224392

We would like to invite you to participate in this research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or you would like more information.

Details of Project

This study aims to find out whether group sessions can help you to learn how to manage your anger and emotions better.

We would like you to come along to six group sessions which will last for 30-40 minutes. In these sessions we will teach you about what causes people to get angry and how to tell when you are angry. We will also teach you ways to respond to situations that make you feel angry and give you a chance to practise these strategies. There may be some additional activities that you could do outside of these sessions.

There will be a member of school staff in these sessions who will be there to help and support you in case you become upset or need some quiet time.

Project data

We will be collecting some data from questionnaires that we will be asking you to complete. This will be used in our project but everything that we used will have your name and the name of the school removed from it.

Appendix 3: Letter inviting the schools to take part

Dear

Thank you for expressing an interest in our anger management intervention programme. Before the programme commences, it is important for you to read the following information carefully as it details the support that would be required from the school and gives an overview of the intervention programme.

This programme is part of a larger research project aimed at investigating whether group sessions can help pupils learn to manage their anger/emotions and whether this in turn positively impacts on peer relations. Feedback will be given to the school about the programme's effectiveness. Advice will also be provided about continued management of the target children's behaviour, and about the school running its own anger management groups in the future.

Details of the Project

We will be conducting six group sessions (of 6 pupils), which will each last for 30-40 minutes. In these sessions, we will teach pupils about what causes people to get angry and how to tell when they are angry. We will also teach them ways to respond to situations that make them feel angry and give them a chance to practice these strategies. There may be some additional activities that they could complete outside of these sessions.

The sessions will need to take place in a quiet place, which is preferably the same every week. It is ideal if each session finishes with some small reward for attending – such as a drink and biscuit – and an opportunity for socialising. This is included in the allocated time.

Project Data

In order to evaluate the impact of our programme, it is important that we collect some data before and after the intervention programme. This will consist of some questionnaires completed by teachers, parents, pupils and their peers. Please note that the name of your school and all participant names will be anonymous. This data will serve solely as a measure of how effective these sessions have been.

School Commitment

1. It is required that someone from the school (link support staff) attends all six sessions (this can be the SENCO, LSA or FLO). This person will be required to act as a link to the class teacher; check that the pupils complete any homework that is set during the sessions; and adhere to any targets that the pupils/group may have set during the sessions. It is vital that the skills and strategies that are developed during the sessions are encouraged during the rest of the week by the school.

2. The class teachers of the pupils in the group and hopefully the link support staff will be required to attend a twilight session prior to the

intervention programme. Time and date can be negotiated with the school.

3. The class teacher will be asked to carry out some questionnaires before and after the intervention.

4. Background information on each pupil will be required as part of the study, for example, age, gender, and national curriculum levels.

5. Parents will be invited to attend a meeting led by myself to introduce the study and the ideas behind the programme, parents will be asked to complete questionnaires in relation to their child's behaviour at home.

6. There will be a 3 month follow up, in order to measure whether the intervention is effective in the long term. The class teacher and parents will once again be asked to carry out the same questionnaires as before.

7. A number of children, teachers and parents will be asked to participate in interviews to explore the programme's effectiveness. Interviews will be undertaken by a member of the research team.

You participation in the study is voluntary and you are free to withdraw at any time without giving a reason. All data will be collected and stored in accordance with the Data Protection Act 1998.

Thank you once again for expressing an interest. I look forward to working with you and your school.

Yours sincerely,

Susanne Watson
Trainee Educational Psychologist

Appendix 4: Letter for information session

Dear parents/carers

You will remember that you agreed for your child to take part in a group at school promoting emotional literacy as part of a research project we are running here in Kent. As part of this research project we would like to invite you into school for an information session.

The information session will last approximately 20 minutes and will further explain the group that your child is attending. It will also be an opportunity for you to ask any questions you have about the group or the research project. As part of the information session we will ask you to fill out a short questionnaire about your child, which will be used as part of our research.

I would like to invite you to the information session at _____ School on _____ at _____.

Your attendance at this information session and your completion of the questionnaires is of course completely voluntary. Please inform me on _____ if you are unable to attend.

I look forward to meeting you and thank you for your participation.

Yours sincerely

Trainee Educational Psychologist

Appendix 5: Interview assent form

Assent Form

I confirm that:

✓ I agree to be interviewed for the research project promoting emotional literacy

✓ I understand that I may withdraw from the project at any time

✓ I understand that I may refuse to answer any questions

✓ I agree for the interview to be recorded

✓ I understand that all information will be kept strictly confidential

✓ I understand that I will not be identifiable

✓ I have been able to ask questions about the research project

✓ The project has been explained to me

Full name _____

Signature_____

Today's Date_____

Appendix 6: Interview consent form

Consent Form

I confirm that:

✓ I agree to take part in the research project promoting emotional literacy

✓ I have been given the information sheet about the project

✓ I understand that I may withdraw from the project at any time

✓ I understand that I may refuse to answer any questions

✓ I agree for the interview to be recorded

✓ I understand that all information will be kept strictly confidential

✓ I understand that participants and children under discussion will not be identifiable

✓ I have been able to ask questions about the research project

✓ The project has been explained to my satisfaction

Full name _____

Signature_____

Today's Date_____

Appendix 7: Information sheet for child interview

Information Sheet

This study aims to investigate whether group sessions can help children to learn how to manage their anger and emotions. As part of the research I am interviewing children who have been involved in the group sessions. The interview will involve a number of questions about your experiences of the group, what you liked and didn't like. The interview will last approximately 10 minutes.

All information you provide will be treated with the strictest confidence and you will not be identifiable. Your participation is voluntary and you may withdraw from the research at any time.

I am asking your permission to record the interview; once the interview has been transcribed the audio version of the interview will be destroyed.

If you have any further questions, please don't hesitate to ask. I can be contacted via email at susanne.watson@kent.gov.uk or on 01303 224 392

Thank you for your participation

Susanne Watson
Trainee Educational Psychologist

Appendix 8: Information sheet for parent interview

Information Sheet

This study aims to investigate whether group sessions can help children to learn how to manage their anger and emotions. As part of the research I am interviewing parents of children who have been involved in the group sessions. The interview will take a semi structured format and will consist of a number of open ended questions which may be followed by further prompts. The interview will include asking you to discuss your child's experiences of the group. The interview will last approximately 15 minutes.

All information you provide will be treated with the strictest confidence and participants and the children under discussion will not be identifiable. Your participation is voluntary and you may withdraw from the research at any time.

I am asking your permission to record the interview; once the interview has been transcribed the audio version of the interview will be destroyed.

If you have any further questions, please don't hesitate to ask. I can be contacted via email at susanne.watson@kent.gov.uk or on 01303 224 392

Thank you for your participation

Susanne Watson
Trainee Educational Psychologist

Appendix 9: Information sheet for facilitator interview

Information Sheet

This study aims to investigate whether group sessions can help children to learn how to manage their anger and emotions. As part of the research I am interviewing professionals who have been involved in the running of the group sessions. The interview will take a semi structured format and will consist of a number of open ended questions which may be followed by further prompts. The interview will include asking you to discuss your experiences of the group you were involved in and what helped facilitate and hinder the progress of the children within the group. The interview will last approximately 30 minutes.

All information you provide will be treated with the strictest confidence and participants and the children under discussion will not be identifiable. Your participation is voluntary and you may withdraw from the research at any time.

I am asking your permission to record the interview; once the interview has been transcribed the audio version of the interview will be destroyed.

If you have any further questions, please don't hesitate to ask. I can be contacted via email at susanne.watson@kent.gov.uk or on 01303 224 392

Thank you for your participation

Susanne Watson
Trainee Educational Psychologist

Appendix 10: Child interview schedule

Interview Schedule

Children:

- How was the group for you?
- Why did you attend the group?
- What did you like about the group?
- What didn't you like about the group?
- What have you learnt from the group?
- Which ideas will be helpful in managing your anger at home/school?
- What was unhelpful?
- If you could change something about the group what would it be?
- How did you feel about coming to the sessions?
- What was it like being with the other children in the group?
- What do you think about the other children in the group?
- How did you feel about talking about your experiences in front of the other children?
- Who has helped you to use these ideas at home/school?
- Who has made it more difficult to use these ideas at home/school?
- Since being in the group what has changed for you?
- Since being in the group how do you feel different?

Appendix 11: Revised Child interview

Interview Schedule:

Children:

- How was the group for you?
- Why did you attend the group?
- What did you like about the group?
- What didn't you like about the group?

- Tell me about a time when you recently got angry?
- Tell me about what were you thinking/ feeling?
- Tell me about what you did?
- What makes you angry? What do you do when that happens?
- Tell me about a time when you have used ideas from the group to help you when you are angry?
- Before you came to the group what did you do when you got angry?

- What have you learnt from the group?
- Which ideas will be helpful in managing your anger at home/school?
- What was unhelpful?

- If you could change something about the group what would it be?
- How did you feel about coming to the sessions?

- What was it like being with the other children in the group?
- Tell me about the other children in the group?
- Tell me about X (insert child's name)?
- How did the other children get on in the group?
- Who were your friends in the group?
- Which children were not your friends?
- How did you get on with them in the group?
- What was it like having your friends in the group?
- What was it like having children that were not your friends in the group?

- What kind of things did you talk about in the group?
- How did your feel hearing other children talk about when they get angry?
- How did you feel about talking about your experiences in front of the other children?
- How was talking about your experiences helpful?
- How was hearing about other children's experiences helpful?
- Who can your talk to when you get angry?
- Who can you talk to about your feelings?

- How do other people help you when you are angry? e.g. mum, teacher, friends.
- Who has helped you to use these ideas from the group at home/school?
- Who has made it more difficult to use these ideas at home/school?

- Since being in the group what has changed for you?
- Since being in the group how do you feel different?

Appendix 12: Parent interview schedule

Interview Schedule:

Parents:

- Why did your child take part in the anger management programme?
- What were your expectations for your child in the programme?
- Have you noticed any changes in your child since starting the group?
- What did your child tell you about the sessions?
- What did your child find helpful from the group?
- What did your child like/dislike about the group?
- How did your child feel about coming to the group?
- What made it more difficult for your child to use the ideas from the session?
- What stopped your child from using these ideas at home/school?
- Who has helped your child use the ideas from the group?
- If you could change anything about the running of the programme, what would it be?

Appendix 13: Facilitator interview schedule

Interview Schedule:

Facilitatators:

- What were your expectations for the children in the program?
- Why were the children chosen for the group?
- How did the sessions go?
- What were the strengths of the program?
- What were the weaknesses of the program?
- What did the children particularly like about the group?
- What did the children not like about the group?
- What factors impacted on the success of the group?
- What stopped children using these ideas at school?
- What happened during the sessions that made them more difficult?
- If you could change something about the group/sessions, what would it be?
- What could have helped make the program more successful?
- How did the children interact with each other?
- How well did the children participate in the group?
- What changes have you noticed in the children since starting the group?

Appendix 14: Example child interview

Example Child Interview:

Thinking about the group that you came to, how was the group for you?

It helped me, it helped me for ways to calm down. It gave me more ideas.

Why do you think you came to the group?

Sometimes when I do get angry, I go, go, go quite bad.

So why do you think the teachers chose you?

Because sometimes she sees me struggling and getting angry; struggling to ignore.

So do you want to tell me about a time that you got angry recently?

When someone tried to say that my pen was dead and they was lying so I got angry because my mum bought me it, so I got angry and I went over and took it out of their tray and when they moaned and I say "It's not yours."

So what were you thinking at that time?

I was thinking like he's lying and it's not his.

How did that make you feel?

Angry.

Ok – and then you went and took it out of the tray, is that all that you did?

And I hit him.

Ok. So can you tell me about a time that you got angry that you've used ideas from the group?

When my winds me up sister and comes in my room, I just ignored her and pretend I have my bubble round me.

How did that work?

It worked good.

Are there any other times you have managed to use the ideas?

When it's not my fault, when my mum and dad tell me off and it's not my fault.

What do you do then?

I take deep breathes.

Can you tell me what you liked about coming to the group?

I liked it because I liked that piece of paper where you saw things differently. Some people spotted the different ones and some people spotted the other ones and people have different ways of seeing things.

I liked my triangle game, the game with my triangle, the feelings.

What did you like about those things?

They were fun and also they was helping me.

How did they help you?

They helped me by understand, they helped me by making me understand, understand what anger, what angry is.

What didn't you like about the group?

Once when Mrs E******* only told me off, not the person that was doing it who was winding me up as well. She only told off me and that was it. That's it, I like it all then.

So what was it like being with the other children in the group?

It was a bit strange like sharing, like sharing your feelings and emotions with other people. In a way it is better as it shows that you can open up to people.

How did you feel about sharing your emotions and feelings?

Fine because I knew that if they told mine, I could tell theirs because it is not just mine that I am hiding, they're hiding their emotions as well.

Can you tell me about the other children in the group?

Do I say their names?

Yes you can say their names.

Sometimes P**** annoyed me by, just winding me up and sometimes I get along with A***, sometimes I don't, I get on with B** all the time unless he winds me up and I don't get along with K*****. F***** I don't really talk to.

So what is it that the other children did that wind you up?

They just, they call me names so I call them names back. I get in trouble but they don't because they started it but then I end it, by calling them names back.

So, how would you say the other children got on in the group?

They got on. Basically it wasn't how you got on with other people, it was what you're getting taught and you just ignore them and you won't even know they are here.

How was it having those children that you didn't really like or wind you up in the room?

I tried to ignore them but when they start I call them a name back and then, that was it.

What would you say that you have learnt coming to the group?

Loads of different ways to keep calm. I've learnt what anger means and learnt how to see things differently.

Which of those ideas will be helpful to you to manage your anger?

I've got to think, the bubble where you pretend that you have a bubble round you and count to 10 or more or take deep breaths.

Have you used any of those?

Yes.

What do you think will stop you from using them?

When they talk about my family, because I don't like it, when they say like stuff about your family, I don't like it

What do you do then?

I chase them, but that is the only time that I don't use the ways, but when people just wind me up I use the ways, but when they say stuff about my family I chase them.

What kind of things did you talk about when you were in the group?

I talked about when I was angry and what I did when I was angry and I talk about myself.

What was helpful about talking about your experiences?

It was helpful by you could feel you could talk to someone, it was helpful to talk to someone.

What is good about having someone to talk to?

You don't have to hide anything you can just tell them when you see them.

How did you feel hearing other children talk about when they got angry?

It felt quite good because if they say that they told the teacher something it could give me ideas and could help others.

When you get angry, who can you go and talk to normally?

My aunty and my cousin.

How do they help you?

They help me by just saying to forget about it and they give a drink and stuff.

Is there anybody else that helps you when you get angry?

My grandad.

How does he help you?

He helps me by taking me into the garden or takes me for a walk.

Who's helped you use the ideas from the group at home or at school?

J***. J*** is the one I see on Wednesdays. Me and B** go to see her, and A**** and K******

Who is J*?**

She is a lady who brings her little dog along, she's like she's like what you do, but she don't do it like this, she speaks to you and she is talking, basically like what you do but she don't do the questions.

Has anybody at home helped you use the ideas?

My mum.

How does your mum help you?

By just saying to go and sit in your room and take deep breathes.

Was there anything unhelpful about the group?

No.

Ok. Since you've been in the group, what has changed for you?

A lot of things, I am not angry most of the time now. I am just angry like at little things. Normally I was angry all the time.

How has that changed?

It has changed quite a bit.

What do you think made it change?

It changed by just listening, by listening to the ways they teach us.

Since you have been in the group, do you feel any different?

I feel calmer and more relaxed.

Is there anything else you want to say before we finish?

That I like coming.

Thank you.

Appendix 15: Parent example interview

Example parent interview

P** has just taken part in a group to promote emotional literacy and help manage his anger. Why do you think he was chosen for the group?**

As far as I know there was a situation with a little lad at school. They were both in the same class, both the same build and they had a big fight but P**** seemed to have got this boy on the floor and then just completely lost the plot and I think he was going to do something quite nasty. I think they had to stop it and say look this is just over the top. I think this is mainly the reason. He has had the odd little fight here and there, which children do but I think that that was because he was seen to be completely losing it. I thought that he was going to hurt this little boy. I think that is the main reason.

What were you expectations for P** for coming to the group?**

It's difficult, um I was hoping that he would see how to calm himself down and stop and think which I know sometimes he doesn't and just get the chance to meet other other people, other children knowing full well he is not the only one with possible anger issues and things. I think that is the main thing I was hoping for.

How have your expectations been met?

He does seem a bit calmer. Not all the time but I am sure sometimes he does sit and think and go "oh ok I've pushed my luck I'll go nice and quiet and I will think about it." You can see him sometimes thinking and the cogs are moving where before I am sure he wouldn't have done. That might be part and parcel of him growing up and getting older and realising, but I am sure he is a lot calmer definitely.

Can you just tell me a bit about him being able to be in a group with other children, how do you think this has helped?

I think he sees other people, that he is not the only one with a problem. Sometimes he can get on so well as a group and other times I think he is a bit daunted by the whole fact. The more the children that have got things they want to say they, but they have got to be patient and wait. I think that sometimes in a big group he is forever putting his hand up and no on is coming to him and he gets angry because he thinks everyone is ignoring him which obviously they are not going to ignore him but there are other people to consider. I think like most children he is in his own little world. Why isn't everybody listening to me when I talk. He can't understand that you have got to wait your turn in life no matter if you are a child or an adult, you can't just push in. Me, me, me because it doesn't work like that.

So you have touched on this a little bit already but what changes have you noticed since he started the group?

He does seem a bit calmer. I haven't really had a chance to speak to his teacher so I don't know what he is like in class. I am hoping he has calmed down in class. I think also now when people take the mickey out of his ticks he doesn't get offensive as much and is learning to accept that he has got a problem and the more he ignores and everyone else ignores it, the better he will get on. His sister takes the mickey out of him sometimes or tells him to be quiet when he is making all these noises and we all know he can't help it, but most of the time he just lets it go over his head which is quite good, but I am sure he has definitely calmed down.

What did P** tell you about the sessions?**

Nothing. (laughter). Nothing, he showed me his certificate, then he was gone and I have been looking at his paperwork about little things that have wound him up when I have taken his play station off him. That's one big no no, I mustn't take his play station off him. He definitely gets upset about that but I find his ticks come out a lot more when he gets over excited or he can't do a certain gain so I do try to make sure that the games I give him are calmer and he does get very frustrated over that. So looking at some of his paperwork, it's mainly what happens more at home than he talks about the school.

What do you think he might have found helpful about the group?

He hasn't told me much. Mainly the group is around him and realising that he is not the only one with a problem. If you think that you are the only one you build it up but because there are other people, like my friend just said her son has been diagnosed with ADHD. P**** was listening and he is sitting there thinking 'oh I'm not the only one' and seems to be a lot calmer with the boy now. He seems to think that, what is the word I am looking for, more accepting of bad behaviour in others. Like, oh ok he's got a problem like mine. I am sure he is a lot more calmer about it and more accepting of other people.

How do you think P** felt about coming to the group?**

He seemed to enjoy it. He didn't seem to not as far as I know and the teachers have certainly not said he didn't want to go. Something with P**** if he makes his mind he will not do anything unless he wants to, but he always seemed keen to go to school. He didn't say I don't want to go because I've got that today.

What do you think will make it more difficult for Peter to use the ideas from the group?

I don't really know what was said or done I can't really say on that. I can't answer that one.

Who do you think has helped P** use any of the ideas of the group?**

His teacher, she is always very calm and understanding about him problem. I am t saying none of the teachers have never been but I think the more people who ignore his ticking and grunting noises, the more he accepts it which makes

him a lot calmer. Obviously you will get a few children who will take the mickey, even just to be nasty, even though they accept it most of the time you get the odd time where they just take the mickey. If he can just understand that it is just being nasty and that he can be nasty to them on some occasions so it is one or the other, isn't it, six of one, six of the other.

If you could change anything about the running of the programme, what would you change?

Nothing I think, I don't really know that much about it. (Laughter). If he had opened up a bit more and told me more then I would be able to answer the question but as far as I am concerned it seems to have calmed him down so it must be good.

Is there anything else you would like to say?

No I don't think so.

Thank you.

Appendix 16: Example facilitator interview

Example facilitator interview

I: So thinking about the anger management group that you helped facilitate what were your expectations for the children in the programme?

To help them perhaps control their anger or learn ways to control their anger, to be able to talk about their feelings as well, I think most of them are able to do that in the session as well which I felt was quite good as well because they got a chance to each air their views and they each got a chance to you know talk about what made them angry that's what I was expecting to happen and it did, it was good.

I: Why do you think those particular children were chosen to be part of the group?

Different issues with all the children I think, a lot of anger problems perhaps in the playground from what my experience of working with them most children perhaps do sometimes lash out a bit more than some of the others in the class and perhaps needed that you know that help to air their views rather than lash out.

I: How do you feel the sessions went?

Reasonably well, I think we had some good sessions, they all got involved, it was good.

I: What was good about the good sessions?

The good about the good sessions, again they all spoke out didn't they, they all had time to air their views they all responded well to the praise the smiley faces they all responded well to that and getting the certificate at the end. It all helped, the way the sessions were set out as well they followed on and they sort of recapped on last weeks session as well so it wasn't just done and forgotten, it was brought back up again so it carried on through. I thought that was good.

I: Okay, you mentioned the smiley faces do you want to say a bit more about that and why you thought that was a good part of it?

Its an initiative isn't it for them to actually open up perhaps and get involved in the session and I think praise always works for children anyway myself using merits and things on the board, they do respond well to that, and I think in that particular group I think they needed something like that to focus on as well as what they were doing. It was good.

I: Why do you think those particular children it worked particularly well?

I think it would work well with all children really but for those I think, they do respond to praise and I think they need 'Oh well done, your on task' to remind them and the others that they are on task and that they are doing the right thing

rather than the negative all the time, I think they need the positive more than the negative.

I: You said there was some good sessions, perhaps the sessions that went less well?

I think we just had an incident with one child where he was a bit off, I think he had an off day, I don't think it was nothing major, I think it was just he had an off day perhaps something had happened at home or at school that we weren't aware of and he wasn't very focussed on the group, but he was brought round at the end he did well and everything seemed to go smoothly at the end there was no big major incident or anything I think he just wasn't on task and he wasn't focussed for that group for that particular day.

I: You've touched a bit on this already but what would you say the strengths of the programme are?

Again I think it's the continuation through the programme. I did like the way they were able to talk and write so they got, your looking at learning styles, so I you've got things set out for the children that would like to air their views verbally, those that would like to draw or write as well, so your allowing the children to do that sort of thing rather than just set this ,set that so that they can, and it's quite flexible as well so if they wanted to chat a little bit more you know given the time span your able to do that rather than its Oh no we've got to get on with this, well yeah it well we'll have this and we'll have that and then afterwards we'll go back if we've got time. They were able to have a chat about things if they wanted to or if they didn't want to speak they could just write things down that was good as well, so they had both options, some children like to close up – they write but they won't talk and I found that that was good.

I: Any other strengths?

The worksheets and things that you provided they were very clear for them to read especially the anger one where they had to write in the boxes, they did like doing those as well, I don't think a lot of them did the homework tasks set I would say that would be something that perhaps needed to be looked over again because you will find not everyone doing – it was the same in the class not everybody will do that homework and then its quite hard to draw upon it at the next session. But it was good that we were able to draw upon things, and that's what I did like about it that you were able to go over it again rather than just one thing per week, we were able to go back and talk about things.,

I: Why do you think the children didn't do their homework?

From experience with the classes that they are in I don't think they do the class homework as well, it may well have been you know, 'I'm too busy and I want to go out and play' I don't know to be honest with you, its just the same sort of thing that happens in class, you know sometimes they'll do it if they've got a spare five minutes. If they could be bothered. But I don't know its perhaps that it was something they didn't feel that they needed to do, because they were

able to talk to you again at the next session rather than perhaps maybe there is no support at home I don't know I don't know each individual case, so I wouldn't be able to comment on that.

I: What would you feel were some of the weaknesses in the programme were?

I don't think there were any weaknesses I think we had a few time issues and things with the dates because of school time and holidays and things but I don't think there were any weaknesses as sort.

I: What could have helped made it more successful do you think?

I don't know – I think everything worked well to be honest with you, the praise thing with the smiley faces that really got them involved and they were very on task because of that so that helped with the behaviour management side of things. But I think everything went well. Perhaps if anything a folder for them for each individual child and their work so that they could see what they had done each week and so that belonged to them that might have been something that perhaps they could have had.

I: What did you think the children particularly liked about the group?

Fruit, that went down well and the drink, but also I think they did enjoy airing their views because they did during the week, they did come to me and say 'Oh have we got anger management this week, are we doing it this are we doing it this week'. They were very interested in doing it, it wasn't oh, have we got to go, like some sessions' but no they were very interested in doing it. It kept them on task, you know and perhaps having been able to move it into the classroom, if I was working with them a bit more than I do you know I would be able to follow that on and work with them with the bits and pieces they've learnt and how to control things, but .

I: So how do you think they have managed to kind of sort of generalise outside the group?

I think since B** was saying that he had got into an incident in the playground and he was able to sort of take a step back and say no I'm going to go and tell somebody that this is happening rather so, its made them think more about their actions and why things aren't right and why things should be done a certain way and you know why it isn't right just to hit people, I think perhaps its made them more aware of their behaviour and more aware of their own problems and issues.

I: Okay, do you think that the children didn't like about the group?

I think a couple of them did find it hard to put things on paper, so again being able to talk about that would stop that problem....

I: So you were talking before a bit about how you don't really see them that often. Do you think there was any way that they could have been more supported outside of the group?

Yes perhaps if –It's quite difficult I work in Year 5 but because of me being pulled left right and centre, because of being a high level TA, I'm not consistently with those children and they are cross two classes and I only really work with the one class, so perhaps having somebody else down from their class, but again you have got to think about the other 30 children in the class as well. It's quite a difficult thing to put somebody down to half an hour to an hour each week if they've got a set timetable to do. I think really it just because I'm aloud to go here there and everywhere you know it was better for me to do, rather than pull people away from their own groups that they are doing in the afternoons.

I: Is there any other factors impacted on the success of the group that you sort of talked about support at school, anything else?

No, I'm not sure, yeah perhaps support I mean the teachers were very supportive about them coming down it is really the support that they are getting and obviously you know you being there and it's the same person each time that helped because its sort of familiarity isn't it. And perhaps if we took it on board as a school so that they could then see it's not just them perhaps as a wider group rather than just singling those children out perhaps.

I: In terms of support at home do you think?

Yeah perhaps bit more parental involvement, maybe future time perhaps the parents having a meeting with you before hand or

I: They did.

They did as well, I was very unaware of what went on then I do apologise. But perhaps them being involved in some of the sessions maybe , I don't know, whether they would do that is another thing you know I don't know the families and their backgrounds so.

I: What do you think might have to stop children from using these ideas in school?

Perhaps it is something really, really worrying them you know, if it was a really big issue out in the playground or somebody had been really nasty to them and their anger had just taken over perhaps - instance in the classroom generally okay, they are normally calmed quite easily but I think the playground you know perhaps teaching them ways to play with other children rather than deal with things differently than just lashing out which is what we did but the playground it seems to take over because of the peer pressure and the children that are around them , it's just not that little group is it, it's everybody out there, so I don't know perhaps, I think the playground needs to be looked at. I mean we are having sort of peer mediators and things, you know dotted about so and there is

lots of playground pals I'm um doing a course at the moment so you now perhaps that might help having those out there to be able to report back to and calm things down perhaps a mediator like, rather than them having to deal with it themselves

I: Was there anything that happen during the sessions that made them more difficult?

I think N***** had a wobble didn't he and when you were on your own with A**** he had a wobble but I think them knowing that they had PE and knowing that they had golden time didn't help with some of them occasionally but I think outside you know home problems with N*****, I think that I do obviously think that was what the problem was with him that day. Perhaps something had gone on he didn't really want to chat either did he, so he was very sort of he was very angry that day wasn't he I think perhaps, you know home life.

I: If you could change anything about the group or the sessions what would it be?

Me being there for each one, I think, and I'm so sorry about that but, I think you know for me to be there every time would have been more helpful to you and the children because then again its that familiarity for them the routine, but it didn't happen so.

I: Anything else?

No I don't think so.

I: So thinking back to the children now within the group you've touched on this briefly but how well would you say the children participated in the group?

Very well, very well, across the six of them as well I think you know it was across the board they were very eager to give up their answers and write down things and if they couldn't write they were able to verbalise it so I think they were very good at contributing.

I: Why did you think that?

Again I think the praising and that really worked well with them and I think they were eager I just think they were eager to come and have a chat and talk about this and they liked the idea of them coming out to the group, it was just a thing that they were very positive about and the groups went well and they were positive about it during the week as well. Oh we're coming down 'Mrs F****, we're going to see Ms ****** and they were very positive so I think it worked very well that way.

I: Why did you think they were so positive about it?

I think they enjoyed coming out, they liked their time with the group and I don't know whether it's just the feeling of being a part of something as well, you know that they liked. And nobody else was doing that, they did like that.

I: What do you think they benefited from most?

Being able to air their views being able to talk about their feelings and the way they deal with their feelings I think they benefited from that because again going back to B** him saying Oh yeah I stopped and went and told the teacher instead of hitting him. He was able to talk about his home life as well as school life so it was, his whole life not just school it was everything, so I think it was a good thing that they were able to talk about their problems and their anger and the way they dealt with things.

I: How did the children interact with each other?

They were quite supportive, most of the time, oh you now 'well done' and they were very eager to get their smiley faces so if they saw one child being praised it was 'well I'm going to stick my finger on my lip as well', you know 'I'm going to get praised', they interacted really well with each other, they took turns so you know they were able to listen to others as well so they had the skills there, they had their listening skills as well as their speaking skills, it was good.

I: What changes have you noticed in the children since they started the group?

Personally I haven't because I don't often go out on the playground and as you know I in a small group, so I don't often see them, to be honest with you to be able to notice changes. I haven't noticed A**** being in detention as much B** seems calmer from just a quick observation but I haven't been in the class enough to be able to note, 'Oh that's changed, that's different.'

I: Is there anything else that you would like to say?

No I think I really enjoyed the groups, I'm gutted I didn't come down for them all to be honest with you, but and I think the boys benefited from them being able to talk about things and yeah, learn different ways different strategies of dealing with their anger. I think it all went well.

I: Okay, thank you!

Appendix 17: Description of interview themes

Anger	
Acknowledgement of anger	
Reason for attending group	In response to the question 'why did you come to the group?', making reference to anger, aggressive behaviour or other negative behavioural reactions, references to being angry, annoyed or stressed and wanting to change this, wanting to calm down or learn calming strategies.
Not knowing why attended group	In response to the question 'why did you come to the group?', children are unable to give reason for attending the group or answer 'don't know'.
Anger triggers	
Physical	References to physical actions which make them angry such as being hit, kicked or pushed by others, direct links made between physical triggers and being angry.
Verbal	References to things which are said to them when talking about situations which make them angry or direct links made between being angry and verbal triggers such as being called names, others taunting them, swearing at them or shouting at them.
Anger responses	
Physical	References made to physical responses demonstrated by the children when angry, for example hitting, hurting or chasing others.
Non-physical	References made to non-physical responses when angry, such as calling others names.
Consequences of anger	
Getting into trouble	References made to getting into trouble or someone telling the teaching when describing situations where they have been angry.
Regretting behaviour	References made to regretting behaviour or wishing they hadn't done something when describing situations where they were angry.
Changes in anger	
Positive changes	References made to positive changes since attending the group, including answers to the questions 'has anything changed since being in the group' and

	'since being in the group how do you feel different', such as references to being happier, being helped by the group, things having improved and being able to do things differently. Changes which are positive in nature but not particularly specific.
Not getting angry	References made to not getting angry when faced with situations which would have made them angry before.
Controlling anger	References made to being able to control, manage or calm their anger or stress better.
Understanding anger	References made to gaining an understanding of their anger or learning about anger.
Seeing things differently	References made to thinking about things or seeing things differently, being able to appreciate there are different and alternative views of things.
Not reacting	References made to learning not to react to things, knowing not to react and actual examples of not reacting to situations that make them angry or would have previously made them angry.
Using calming strategies	References made to learning to calm self down, using calming strategies in general or specific calming strategies such as walking away, pretending to be in a special place or surrounded by a bubble, listening to music and counting to 10.
Talking to an adult	References made to telling or talking to an adult such as a teacher when they are angry or faced with trigger situations.
Negative changes	Any references made to negative changes since attending the group such as behaviour getting worse.

Positive responses to the intervention	
Positive feelings	Reference to positive opinions about the group such as describing the group as o.k., alright, fine, good, liking the group, loving the group, and feeling happy about coming.

Enjoying group	References made to enjoying the group or indicating that the group was fun.
Not wanting group to end	References made to not wanting the group to come to an end, or that they wanted the group to continue.
Changes in feelings towards the group	References made to changing their feelings towards the group which were less positive at the outset, such as no longer feeling anxious or nervous, changing feelings as the group went on, talking about getting used to the group and now the group being o.k.
Helpful ideas from the intervention	
Thinking about being angry	References made to thinking about things in the group, thinking about being angry and thinking about their actions when angry.
The rules	Reference made to the group rules, including the use and benefits of the rules and direct reference to individual rules such as be nice to each other, being respectful of one another, listen to each other, taking turns, putting your hand up to talk, keeping your hands and feet to yourself and not talking whilst others are talking.
Strategies	Reference made to learning about strategies in the group, helpful strategies listed or described including identifying trigger, fuse and actions, and calming strategies such as thinking of a calm place and visualising it, using up energy by doing exercise, taking anger out on a punch bag, listening to music or creating an imaginary bubble.
Writing things down	Reference made to the benefit of being able to write things down in the group.
Benefits of the intervention	
Developing a feeling of belonging	References made to a feeling of belonging in the group, a sense of group cohesion or being their together.
Knowing others get angry	References made to benefitting from knowing that others get angry or experience similar difficulties.
Developing friendships	References made to getting to know other children, getting along better, being better friends and making new friendships.

Talking with others	References being made to being given opportunities to talk about their feelings and experiences, feeling that they were able to talk about things with the others, that talking about things was helpful and that it helped managing their anger. References to listening to and finding out about others within the group.
Factors which supported running of the group	
Empathy	References made to feeling sorry for others, or showing an understanding of others being in difficult situations.
Mutual trust	References made to having confidence that other children would not share the information from the group, trusting others with their personal information and understanding that they themselves had to keep other's information private.
Consistency	References to the benefits of consistency or keeping aspects of the group the same across sessions, for example people, facilitators or activities.
Being supported by others in the group	References made to help or support given by others in the group with the ideas from the group, when they got angry or wanted to talk about their feelings.
Being supported by family	References made to help or support given by family members with the ideas from the group, when they are angry or wanted to talk about their feelings.
Being supported by school staff	References made to help or support given by school staff with the ideas from the group, when they are angry or wanted to talk about their feelings.
Being supported by friends	References made to help or support given by friends with the ideas from the group, when they are angry or wanted to talk about their feelings.
Being with friends	Positive references made to being with friends in the group, indications that it was good, nice or that they liked being with friends.
Being rewarded	References made to positive rewards in the group such as positive

	reinforcement, praise, smiley faces and certificates.
Variety of activities on offer	References made to including a range of different activities in the group intervention.

Negative responses to the intervention	
Feelings at the outset	
Not knowing what to expect	References made to not knowing what to group was about, what the sessions would entail or who would be there.
Feeling apprehensive at the beginning	References made to feeling nervous or worried at the beginning of the intervention.
Barriers to using the ideas	
Being too angry	References made to being too angry to use the ideas learnt in the group.
Other people	References made to people making it difficult to use the ideas learnt in the group, naming people and describing situations when asked 'who has made it more difficult to use the ideas from the group?'
Other people talking about my family	Reference made to not being able to use the ideas when things are said about their family.
Factors which made the group more difficult	
Organisation of the group	References made to organisational factors which impacted on setting up or running the groups, such as scheduling, room difficulties and staffing difficulties.
Disruptive behaviour in the group	References to disruptive behaviour during the group sessions, such as shouting out, messing around, being silly, laughing at others, being rude, also references made to behaviours which interrupted the group and stopped the children learning.
Difficulty talking about anger	References made to problems talking about their anger or emotions in the group.
Not getting on with others in the group	References made to not getting on with others in the group, others being unkind to them or calling them names in the group.
Mistrusting others	Concerns about whether other children

	in the group would tell or had told other people outside the group things they had said.
Lack of help outside the group	References made to not receiving help with the ideas from the group, including the answer 'no-one' to the question 'who helped you with the idea from the group?'
Failure to complete homework	References made to not doing the CBT group homework.
Making changes to the group	
Longer intervention	References made to wanting the group to continue or having a longer course of sessions.
Setting	References made to wanting to change the place, or making improvements to the room in which the group took place.
People	References made to wanting to change the people I the group.
Individual attention	References made to wanting an individual rather than group intervention, or greater individual attention in general.
Reinforcement in the wider environment	References made to the need to reinforce the ideas at home or school, taking it on as a whole school intervention or providing more follow-up at home or school.
Nothing	In response to questions about what they would like to change about the group, saying 'nothing', or none of it, references made to liking it the way it is.

Appendix 18: Interview themes by participant

Anger	
Acknowledgement of anger	
Reason for attending group	W1 E4 W6 E5 E7 E8 E9 W10 W12 E13 E14 E15 W18 W19 E20 P2 P3 P4
Not knowing why attended group	E2 W3 W16 W17
Anger triggers	
Physical	W1 W16 W17 W18 W21 P2
Verbal	W1 W3 E4 W6 W12 E13 E15 W18 W19 E20
Anger responses	
Physical	W1E4 E5 W6 W10 E14 W17 W18 W19 E20 W21 P1 P2 F3 F4
Non-physical	W1 W3 W6 W19 P2 F4
Consequences of anger	
Getting into trouble	W1 E13 W17 W18 W19
Regretting behaviour	W6 E13 E14 E15
Changes in anger	
Positive changes	E2 W3 E4 E5 W6 E7 E8 E9 W10 E14 E15 W16 W18 W19 E20 P3 P4 F1 F3 F4
Not getting angry	W1 W3 E5 E9 W10 E13 E15 W18 W19 P3 P4 F4
Controlling anger	W6 E7 E9 E14 E15 P4
Understanding anger	E5 E15 W19 F1 F2
Seeing things differently	W1 E7 W19 F4
Not reacting	W1 E4 E5 W10 W12 E14 W16 E20 P4 F1
Using calming strategies	W1 E2 W3 E5 W6 E7 E8 E9 W10 W11 W16 W18 W19 W21 P4 F1 F3 F4
Talking to an adult	E4 W12 E14 W21 P4 F1 F2 F3
Negative changes	P1 P2 F2

Positive responses to the intervention	
Positive feelings	W1 E2 W3 E4 E5 W6 E7 E9 W10 W11 W12 E13 E14 E15 W16 W17 W18 W19 E20 W21 P1 F1 F2 F3 F4
Enjoying group	W1 E2 E4 W6 E7 W10 W11 E13 E14 W16 W17 W18 W19 P3 P4 F1 F2 F3
Not wanting group to end	E5 W6 W18 F1
Changes in feelings towards the group	E5 W6 E7 E13 E14 E15 W16 W18 E20 P4
Helpful ideas from the intervention	
Thinking about being angry	E7 E8 P3 F2 F3
The rules	E5 W12 W16 W18 W21
Strategies	W1 E2 W3 E4 E5 W6 E8 E9 W10

	W12 E13 E14 E15 W18 W19 E20 F1 F2 F3 F4
Writing things down	E7 W10 E14 F1 F3
Benefits of the intervention	
Developing a feeling of belonging	F1 F3 F4
Knowing others get angry	E13 E14 E20 P3 F4
Developing friendships	W1 W6 E7 E8 E13 W16 W18 E20 F1
Talking with others	E2 W3 E5 W6 E7 E8 W10 W12 E13 E14 E15 W19 E20 F2 F3 F4
Factors which supported the running of the group	
Empathy	W1 W3 W10 W17 W18
Mutual trust	W1 E7 W10 W12 W16 W19 F1 F2 F4
Consistency	F2 F3
Being supported by others in the group	W1 W3 E4 E5 E14 W18 P3 F1 F3 F4
Being supported by family	W1 E2 W3 E4 E5 E8 W12 E14 E15 W17 W18 W19 E20 P2
Being supported by school staff	W3 W6 E7 E8 W12 E13 E15 W19 E20 P3 F1 F3
Being supported by friends	W1 E5 W6 E8 W10 W12 E15 W21
Being with friends	W1 W3 E5 W6 E7 W10 W12 E14 W17 W18 E20 F2
Being rewarded	E2 W3 E14 F1 F3 F4
Variety of activities on offer	F1 F2 F3 F4

Negative responses to the intervention	
Feelings at the outset	
Not knowing what to expect	W3 W6 W10 W11 E13 E14 W18 P4
Feeling apprehensive at the beginning	E5 W6 E7 E8 E9 W10 E13 E14 E15 W16 W18 E20 P4
Barriers to using the ideas	
Being too angry	W1 W18 F3
Other people	E7 W10 W11 E13 E14 E15 W18 E20 W21
Other people talking about my family	W12 W19
Factors which made running the group more difficult	
Organisation of the group	F1 F2 F3 F4
Disruptive behaviour in the group	E2 E4 E8 E9 E14 F1 F2
Difficulty talking about anger	W3 E4 E9 E13 W19 P2 F1F2
Not getting on with others in the group	W3 E4 W6 W10 W12 W18 W19 E20 P4 F1 F2 F4
Mistrusting others	W10 W12 E15 W18 F2 F3
Lack of help outside the group	E2 E4 W6 E9 W10 E13 E15 W18 W21 P2 P4 F1 F2 F3 F4
Failure to complete homework	F1 F2 F3 F4
Making changes to the group	

Longer intervention	W1 P2 F2
Setting	W3 E4 W11 E13
People	W6 E8 W17 E20 F1 F2 F4
Individual attention	E4 P2
Reinforcement in the wider environment	P2 F1 F2 F3 F4
Nothing	E2 E5 E7 E15 W16 P3 P4

Appendix 19: Inter-rater reliability procedure

Inter-rater reliability procedure.

A sub sample of 3 interview transcripts (10% of interviews) was given to a Trainee Educational Psychologist to code for inter-rater reliability purposes. The Trainee Educational Psychologist was given a list of themes identified within the interviews, including descriptions of the themes. The Trainee Educational Psychologist coded the interviews according to these themes. The inter-rater reliability agreement was calculated using the following calculation:

$$\left[\frac{\text{Number of agreements} - \text{Number of disagreements}}{\text{Total number of events}}\right] \times \text{hundred}$$

Appendix 20: Ethical approval application

Ethical approval form: Susanne Watson

1. An evaluation of a short term cognitive behavioural anger management intervention for key stage 2 pupils.

2. The research will add to the growing research base for the effectiveness of CBT-based anger management interventions for children. Currently few studies have focused on short term, community based interventions with children. Additionally research based in the U.K is also limited. There is a clear need for research which evaluates CBT based anger-management programmes for primary aged children, which are U.K based, delivered in a community setting such as a school rather than a clinical setting and are short term rather than long term. The research looks to explore the mediating and moderating factors which impact on the effectiveness of the programme.

   Anger related difficulties such as aggression, hostility and anti-social behaviour continue to pose problems for schools and as a result large numbers of children are referred to Educational Psychology and Children and Adolescent Mental Health services. Children are also at risk of being excluded from school as a result of their anger management difficulties (Snyder et al, 1999). Anger related difficulties such as aggressive behaviour in childhood often serve as predictors for negative outcomes during adolescence (Lochman et al, 2006). This highlights the need for early intervention to prevent such negative outcomes in adolescence and later in adult life.

3. Anger management groups (based on a program designed by Southampton Educational Psychology service) will be delivered by 3 Trainee Educational Psychologist to 6 experimental and 6 wait list control groups once a week for six weeks. Measures will involve pre and post and follow up questionnaires and qualitative interviews with teachers, parents and children. The following questionnaires will be administered:

Social Inclusion Survey / Guess Who (Frederickson and Graham, 1999); Strengths and Difficulties Questionnaire (Goodman, 1997) Anger -pre-post assessment/emotional Literacy checklists (Woodcock (Ed.) 2003); Mullet-dimensional measure of children's perceptions of control (MMCPC) (Frederickson and Graham, 1999); and Parental Stress Index.

4. Groups will be run in mainstream primary schools with 8-11 year olds identified by the school as in need of intervention to help manage emotions and in particular anger. The number of participants in total will be 72 across 12 primary schools. The sample will include both female and male students.

5. Informed consent will be sought from all parents of the children involved in the programme. Permission for involvement will also be sought from children who will be informed that the programme is a part of a research project, it will be ensured that children are given a choice as whether to they participate or not. Information on the study will be provided to parents, children and school staff prior to their involvement in the study. An information session will be run for parents and a twilight session will be provided for schools to introduce the anger management programme and the research study. All participants will be informed that there participation is voluntary and they have a right to withdraw at any time, without negative consequences. Participants filling out questionnaires and undertaking interviews will also be informed that they can refuse to answer any questions.

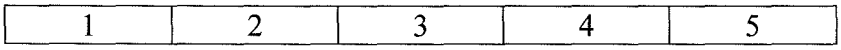
6. The anger management programme has been especially designed for key stage 2 children and focuses on fun games and activities to discuss emotions, in the unlikely event that a child becomes upset during the group, an additional member of staff will always be present, and children will be instructed at the onset of research that they can go to this member of staff if they become upset or want someone to talk to. This additional member of staff will be a school member of staff and children

will also be able to approach the staff member when the group is not running. In terms of continuity of intervention once the six week programme has finished, this will be addressed by providing information to parents and teachers on the techniques involved in the intervention, schools will also be directed to the published materials available. Since a member of school staff will be available throughout the programme, they will be able to continue with aspects of the programme, once the 6 week sessions are over. Ethical issues raised by a control group have been largely addressed by the use of a wait list control, which also allows a greater number of children to be able to participate in the programme, by running it across two terms, than if it was only run in the spring term

7. The project is due to start in January, with pre measures being delivered in January and the experimental anger management groups being delivered at the beginning of February lasting 6 weeks, the wait list control group will be run in the summer term lasting 6 weeks. Data collection will be finished by the end of the summer term 2008.

Appendix 21: Questionnaire for fidelity to the programme

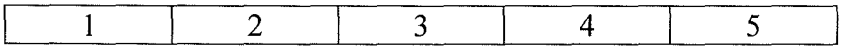
Session 1



Very different from the Manual

Exactly the same as the Manual

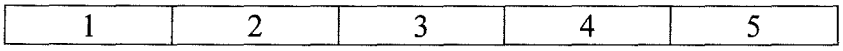
Session 2



Very different from the Manual

Exactly the same as the Manual

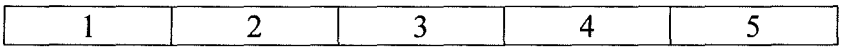
Session 3



Very different from the Manual

Exactly the same as the Manual

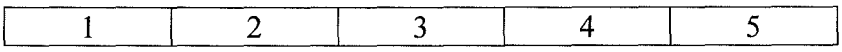
Session 4



Very different from the Manual

Exactly the same as the Manual

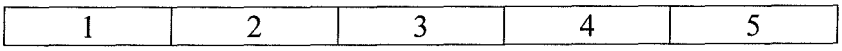
Session 5



Very different from the Manual

Exactly the same as the Manual

Session 6



Very different from the Manual

Exactly the same as the Manual

Appendix 22: Mean scores and standard deviations for SDQ at time 1, 2 & 3

Mean scores and standard deviations for SDQ at time 1, 2 & 3

	Experimental Group Mean and standard deviation			Wait–List Control Group Mean and standard deviation		
	Time 1	Time 2	Time 3	Time 1	Time 2	Time 3
Total SDQ	15.77 (6.84)	15.43 (8.26)	15.97 (8.16)	17.59 (5.62)	17.09 (6.11)	13.36 (5.58)
Emotional	2.26 (2.64)	2.29 (2.71)	2.45 (2.21)	2.97 (2.34)	2.71 (2.10)	1.85 (1.64)
Conduct	3.80 (2.27)	4.20 (2.58)	4.03 (2.68)	4.18 (2.22)	4.38 (2.40)	3.18 (2.04)
Hyperactivity	6.29 (2.76)	5.94 (2.66)	6.18 (3.07)	6.74 (2.75)	6.35 (2.27)	5.52 (2.80)
Peer	3.43 (2.32)	3.00 (2.64)	3.30 (2.69)	3.71 (2.41)	3.65 (2.74)	2.82 (2.71)
Pro-social	5.57 (2.32)	5.66 (2.13)	5.91 (2.47)	4.35 (2.72)	4.26 (2.12)	5.00 (2.37)

Appendix 23: ANOVA for total SDQ and SDQ subscales at time 1

Table: ANOVA results for SDQ at time 1 for experimental and wait-list control groups

		Sum of Squares	df	Mean Square	F	Sig.
Emotional	Between groups	8.778	1	8.778	1.408	.240
	Within groups	417.656	67	6.234		
	Total	426.435	68			
Conduct	Between groups	2.444	1	2.444	.484	.489
	Within groups	338.541	67	5.053		
	Total	340.986	68			
Hyperactivity	Between groups	3.486	1	3.486	.460	.500
	Within groups	507.761	67	7.579		
	Total	511.246	68			
Peer	Between groups	1.326	1	1.326	.238	.627
	Within groups	373.630	67	5.577		
	Total	374.957	68			
Pro-social	Between groups	25.606	1	25.605	4.024	.049
	Within groups	426.336	67	6.363		
	Total	451.942	68			
Total	Between groups	56.927	1	56.927	1.448	.233
	Within groups	2634.407	67	39.320		
	Total	2691.333	68			

Appendix 24: ANOVA results for total SDQ and SDQ subscales at time 2

Table: ANOVA SDQ scores at time 1 for experimental and wait-list control groups

		Sum of Squares	df	Mean Square	F	Sig.
Emotional	Between groups Within groups Total	3.045 394.202 397.246	1 67 68	3.045 5.884	.517	.474
Conduct	Between groups Within groups Total	.573 415.629 416.203	1 67 68	.573 6.203	.092	.762
Hyperactivity	Between groups Within groups Total	2.900 409.650 412.551	1 67 68	2.900 6.114	.474	.493
Peer	Between groups Within groups Total	7.221 483.765 490.986	1 67 68	7.221 7.220	1.000	.321
Pro-social	Between groups Within groups Total	33.439 302.503 335.942	1 67 68	33.439 4.515	7.406	.008
Total	Between groups Within groups Total	47.505 3551.307 3598.812	1 67 68	47.505 53.005	.896	.347

Appendix 25: Multiple regression moderating variables time 1 to time 2.

Total SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.910	5.241		.937	.353
	Experimental condition	.504	1.315	.035	.383	.703
	Age	-.868	.734	-.101	-1.183	.241
	Free School Meals	3.206	1.656	.178	1.936	.058
	Index Multiple Deprivation	-.835	8.251	-.009	-.101	.920
	Adverse Life Events	-.154	.141	-.093	-1.093	.279
	Gender	.563	1.501	.033	.375	.709
	Time 1 SDQ total	.899	.102	.777	8.805	.000
2	(Constant)	6.943	6.492		1.069	.289
	Experimental condition	-.884	2.905	-.061	-.304	.762
	Age	-.822	.743	-.095	-1.106	.273
	Free School Meals	3.274	1.671	.182	1.959	.055
	Index Multiple Deprivation	.148	8.501	.002	.017	.986
	Adverse Life Events	-.408	.494	-.247	-.825	.412
	Gender	.454	1.523	.026	.298	.767
	Time 1 SDQ total	.892	.104	.771	8.614	.000
	Adverse Life Events interaction term	.161	.300	.195	.537	.594

a. Dependent Variable: Time 2 SDQ total

Emotional SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.755	1.548		1.780	.080
	Experimental condition	.083	.402	.017	.207	.836
	Age	-.259	.227	-.091	-1.139	.259
	Free School Meals	1.223	.504	.205	2.426	.018
	Index Multiple Deprivation	-.771	2.527	-.025	-.305	.761
	Adverse Life Events	-.117	.043	-.214	-2.695	.009
	Gender	-.200	.473	-.035	-.423	.674
	SDQ emotional scale time 1	.787	.080	.816	9.829	.000
2	(Constant)	2.553	1.895		1.347	.183
	Experimental condition	.234	.896	.048	.261	.795
	Age	-.265	.231	-.093	-1.145	.257
	Free School Meals	1.217	.510	.204	2.387	.020
	Index Multiple Deprivation	-.881	2.614	-.029	-.337	.737
	Adverse Life Events	-.090	.152	-.164	-.591	.557
	Gender	-.193	.478	-.034	-.404	.688
	SDQ emotional scale time 1	.790	.082	.819	9.640	.000
	Adverse Life Events interaction term	-.017	.093	-.064	-.188	.851

a. Dependent Variable: SDQ emotional scale at time 2

Conduct SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.100	1.978		.556	.580
	Experimental condition	-.019	.503	-.004	-.037	.971
	Age	-.107	.282	-.037	-.380	.705
	Free School Meals	.222	.623	.037	.356	.723
	Index Multiple Deprivation	1.200	3.206	.039	.374	.709
	Adverse Life Events	.014	.054	.026	.264	.793
	Gender	.309	.582	.054	.531	.597
	SDQ conduct scale time 1	.754	.111	.682	6.784	.000
2	(Constant)	2.208	2.518		.877	.384
	Experimental condition	-.749	1.139	-.153	-.658	.513
	Age	-.079	.286	-.028	-.278	.782
	Free School Meals	.257	.627	.043	.410	.683
	Index Multiple Deprivation	1.623	3.273	.053	.496	.622
	Adverse Life Events	-.119	.193	-.214	-.613	.543
	Gender	.237	.593	.041	.400	.691
	SDQ conduct scale time 1	.731	.116	.662	6.304	.000
	Adverse Life Events interaction term	.085	.118	.306	.715	.477

a. Dependent Variable: SDQ conduct scale at time 2

Hyperactivity SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.748	2.100		1.785	.079
	Experimental condition	.371	.509	.076	.730	.468
	Age	-.177	.286	-.061	-.620	.537
	Free School Meals	.174	.632	.029	.276	.784
	Index Multiple Deprivation	1.911	3.237	.062	.590	.557
	Adverse Life Events	-.049	.054	-.088	-.900	.372
	Gender	-.562	.586	-.097	-.959	.341
	SDQ hyperactivity scale time 1	.541	.093	.602	5.791	.000
2	(Constant)	5.851	2.430		2.408	.019
	Experimental condition	-1.261	1.108	-.257	-1.138	.260
	Age	-.121	.284	-.042	-.425	.673
	Free School Meals	.302	.628	.050	.481	.632
	Index Multiple Deprivation	2.972	3.255	.097	.913	.365
	Adverse Life Events	-.343	.186	-.618	-1.845	.070
	Gender	-.662	.581	-.115	-1.139	.259
	SDQ hyperactivity scale time 1	.557	.093	.620	6.011	.000
	Adverse Life Events interaction term	.187	.113	.673	1.653	.104

a. Dependent Variable: SDQ hyperactivity scale at time 2

Pro-social SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.792	1.882		1.484	.143
	Experimental condition	-.699	.489	-.158	-1.430	.158
	Age	.087	.268	.033	.324	.747
	Free School Meals	.638	.593	.117	1.076	.286
	Index Multiple Deprivation	1.089	3.037	.039	.358	.721
	Adverse Life Events	.014	.052	.028	.271	.787
	Gender	.164	.558	.032	.295	.769
	SDQ Pro-social scale time 1	.438	.092	.508	4.741	.000
2	(Constant)	.555	2.255		.246	.806
	Experimental condition	.913	1.046	.207	.873	.386
	Age	.038	.266	.014	.142	.887
	Free School Meals	.528	.586	.097	.900	.372
	Index Multiple Deprivation	-.072	3.061	-.003	-.023	.981
	Adverse Life Events	.306	.176	.611	1.742	.087
	Gender	.275	.553	.053	.498	.621
	SDQ Pro-social scale time 1	.442	.091	.513	4.866	.000
	Adverse Life Events interaction term	-.185	.107	-.739	-1.736	.088

a. Dependent Variable: SDQ Pro-social scale at time 2

Peer SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	1.911		.486	.629
	Experimental condition	.386	.483	.073	.799	.427
	Age	-.400	.272	-.129	-1.472	.146
	Free School Meals	.899	.598	.138	1.502	.138
	Index Multiple Deprivation	-1.703	3.076	-.052	-.554	.582
	Adverse Life Events	-.002	.053	-.004	-.040	.968
	Gender	.636	.558	.103	1.141	.258
	SDQ peer scale time 1	.859	.104	.748	8.252	.000
2	(Constant)	.087	2.331		.037	.970
	Experimental condition	.992	1.068	.189	.928	.357
	Age	-.419	.275	-.135	-1.524	.133
	Free School Meals	.859	.605	.132	1.421	.161
	Index Multiple Deprivation	-2.130	3.163	-.065	-.673	.503
	Adverse Life Events	.108	.181	.181	.597	.553
	Gender	.681	.565	.110	1.206	.233
	SDQ peer scale at time 1	.861	.105	.749	8.221	.000
	Adverse Life Events interaction term	-.070	.110	-.234	-.637	.527

a. Dependent Variable: SDQ peer scale at time 2

Total SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.910	5.241		.937	.353
	Experimental condition	.504	1.315	.035	.383	.703
	Age	-.868	.734	-.101	-1.183	.241
	Free School Meals	3.206	1.656	.178	1.936	.058
	Index Multiple Deprivation	-.835	8.251	-.009	-.101	.920
	Adverse Life Events	-.154	.141	-.093	-1.093	.279
	Gender	.563	1.501	.033	.375	.709
	Time 1 SDQ total	.899	.102	.777	8.805	.000
2	(Constant)	4.387	9.119		.481	.632
	Experimental condition	.792	4.311	.054	.184	.855
	Age	-.862	.745	-.100	-1.157	.252
	Free School Meals	3.250	1.783	.181	1.823	.073
	Index Multiple Deprivation	-.792	8.343	-.009	-.095	.925
	Adverse Life Events	-.153	.143	-.092	-1.070	.289
	Gender	.914	5.213	.053	.175	.861
	Time 1 SDQ total	.901	.106	.779	8.480	.000
	Gender interaction term	-.230	3.260	-.030	-.070	.944

a. Dependent Variable: Time 2 SDQ total

Emotional SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.755	1.548		1.780	.080
	Experimental condition	.083	.402	.017	.207	.836
	Age	-.259	.227	-.091	-1.139	.259
	Free School Meals	1.223	.504	.205	2.426	.018
	Index Multiple Deprivation	-.771	2.527	-.025	-.305	.761
	Adverse Life Events	-.117	.043	-.214	-2.695	.009
	Gender	-.200	.473	-.035	-.423	.674
	SDQ emotional scale time 1	.787	.080	.816	9.829	.000
2	(Constant)	4.446	2.589		1.718	.091
	Experimental condition	-.920	1.293	-.191	-.711	.480
	Age	-.278	.229	-.098	-1.215	.229
	Free School Meals	1.083	.534	.182	2.029	.047
	Index Multiple Deprivation	-.903	2.539	-.030	-.356	.723
	Adverse Life Events	-.120	.044	-.220	-2.748	.008
	Gender	-1.393	1.536	-.245	-.907	.368
	SDQ emotional scale time 1	.778	.081	.807	9.584	.000
	Gender interaction term	.794	.972	.316	.816	.418

a. Dependent Variable: SDQ emotional scale at time 2

Conduct SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.100	1.978		.556	.580
	Experimental condition	-.019	.503	-.004	-.037	.971
	Age	-.107	.282	-.037	-.380	.705
	Free School Meals	.222	.623	.037	.356	.723
	Index Multiple Deprivation	1.200	3.206	.039	.374	.709
	Adverse Life Events	.014	.054	.026	.264	.793
	Gender	.309	.582	.054	.531	.597
	SDQ conduct scale time 1	.754	.111	.682	6.784	.000
2	(Constant)	-.293	3.625		-.081	.936
	Experimental condition	.743	1.732	.152	.429	.669
	Age	-.094	.285	-.033	-.329	.743
	Free School Meals	.332	.671	.055	.495	.622
	Index Multiple Deprivation	1.402	3.257	.046	.431	.668
	Adverse Life Events	.016	.055	.029	.297	.768
	Gender	1.246	2.119	.216	.588	.559
	SDQ conduct scale time 1	.775	.121	.702	6.390	.000
	Gender interaction term	-.604	1.314	-.237	-.460	.647

a. Dependent Variable: SDQ conduct scale at time 2

Hyperactivity SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.748	2.100		1.785	.079
	Experimental condition	.371	.509	.076	.730	.468
	Age	-.177	.286	-.061	-.620	.537
	Free School Meals	.174	.632	.029	.276	.784
	Index Multiple Deprivation	1.911	3.237	.062	.590	.557
	Adverse Life Events	-.049	.054	-.088	-.900	.372
	Gender	-.562	.586	-.097	-.959	.341
	SDQ hyperactivity scale time 1	.541	.093	.602	5.791	.000
2	(Constant)	4.852	3.387		1.432	.157
	Experimental condition	-.272	1.627	-.056	-.167	.868
	Age	-.193	.291	-.067	-.665	.509
	Free School Meals	.092	.667	.015	.137	.891
	Index Multiple Deprivation	1.827	3.265	.059	.560	.578
	Adverse Life Events	-.051	.055	-.092	-.932	.355
	Gender	-1.335	1.945	-.231	-.686	.495
	SDQ hyperactivity scale time 1	.541	.094	.601	5.742	.000
	Gender interaction term	.508	1.218	.199	.417	.678

a. Dependent Variable: SDQ hyperactivity scale at time 2

Pro-social SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.792	1.882		1.484	.143
	Experimental condition	-.699	.489	-.158	-1.430	.158
	Age	.087	.268	.033	.324	.747
	Free School Meals	.638	.593	.117	1.076	.286
	Index Multiple Deprivation	1.089	3.037	.039	.358	.721
	Adverse Life Events	.014	.052	.028	.271	.787
	Gender	.164	.558	.032	.295	.769
	SDQ Pro-social scale time 1	.438	.092	.508	4.741	.000
2	(Constant)	4.473	3.139		1.425	.159
	Experimental condition	-1.683	1.548	-.381	-1.088	.281
	Age	.064	.272	.024	.234	.815
	Free School Meals	.514	.623	.094	.824	.413
	Index Multiple Deprivation	.960	3.057	.035	.314	.755
	Adverse Life Events	.010	.052	.021	.198	.843
	Gender	-1.011	1.840	-.194	-.549	.585
	SDQ Pro-social scale time 1	.436	.093	.506	4.696	.000
	Gender interaction term	.775	1.155	.336	.671	.505

a. Dependent Variable: SDQ Pro-social scale at time 2

Peer SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	1.911		.486	.629
	Experimental condition	.386	.483	.073	.799	.427
	Age	-.400	.272	-.129	-1.472	.146
	Free School Meals	.899	.598	.138	1.502	.138
	Index Multiple Deprivation	-1.703	3.076	-.052	-.554	.582
	Adverse Life Events	-.002	.053	-.004	-.040	.968
	Gender	.636	.558	.103	1.141	.258
	SDQ peer scale time 1	.859	.104	.748	8.252	.000
2	(Constant)	.835	3.235		.258	.797
	Experimental condition	.440	1.568	.084	.280	.780
	Age	-.399	.276	-.128	-1.446	.154
	Free School Meals	.906	.635	.140	1.427	.159
	Index Multiple Deprivation	-1.694	3.113	-.051	-.544	.588
	Adverse Life Events	-.002	.053	-.003	-.035	.972
	Gender	.701	1.883	.113	.373	.711
	SDQ peer scale time 1	.860	.106	.748	8.122	.000
	Gender interaction term	-.043	1.175	-.016	-.036	.971

a. Dependent Variable: SDQ peer scale at time 2

Total SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.910	5.241		.937	.353
	Experimental condition	.504	1.315	.035	.383	.703
	Age	-.868	.734	-.101	-1.183	.241
	Free School Meals	3.206	1.656	.178	1.936	.058
	Index Multiple Deprivation	-.835	8.251	-.009	-.101	.920
	Adverse Life Events	-.154	.141	-.093	-1.093	.279
	Gender	.563	1.501	.033	.375	.709
	Time 1 SDQ total	.899	.102	.777	8.805	.000
2	(Constant)	2.095	5.924		.354	.725
	Experimental condition	1.101	1.439	.076	.765	.447
	Age	-.716	.749	-.083	-.957	.343
	Free School Meals	8.207	5.182	.456	1.584	.119
	Index Multiple Deprivation	-.609	8.252	-.007	-.074	.941
	Adverse Life Events	-.163	.141	-.099	-1.154	.253
	Gender	1.344	1.685	.078	.797	.428
	Time 1 SDQ total	.915	.103	.791	8.861	.000
	Free school meals interaction term	-3.847	3.777	-.295	-1.019	.313

a. Dependent Variable: Time 2 SDQ total

Emotional SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.755	1.548		1.780	.080
	Experimental condition	.083	.402	.017	.207	.836
	Age	-.259	.227	-.091	-1.139	.259
	Free School Meals	1.223	.504	.205	2.426	.018
	Index Multiple Deprivation	-.771	2.527	-.025	-.305	.761
	Adverse Life Events	-.117	.043	-.214	-2.695	.009
	Gender	-.200	.473	-.035	-.423	.674
	SDQ emotional scale time 1	.787	.080	.816	9.829	.000
2	(Constant)	3.004	1.738		1.729	.089
	Experiment al condition	.024	.445	.005	.053	.958
	Age	-.274	.234	-.096	-1.172	.246
	Free School Meals	.740	1.572	.124	.471	.639
	Index Multiple Deprivation	-.790	2.547	-.026	-.310	.758
	Adverse Life Events	-.116	.044	-.212	-2.648	.010
	Gender	-.273	.526	-.048	-.518	.606
	SDQ emotional scale time 1	.786	.081	.815	9.732	.000
	Free school meals interaction term	.375	1.154	.087	.325	.746

a. Dependent Variable: SDQ emotional scale at time 2

Conduct SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.100	1.978		.556	.580
	Experimental condition	-.019	.503	-.004	-.037	.971
	Age	-.107	.282	-.037	-.380	.705
	Free School Meals	.222	.623	.037	.356	.723
	Index Multiple Deprivation	1.200	3.206	.039	.374	.709
	Adverse Life Events	.014	.054	.026	.264	.793
	Gender	.309	.582	.054	.531	.597
	SDQ conduct scale time 1	.754	.111	.682	6.784	.000
2	(Constant)	.162	2.245		.072	.943
	Experimental condition	.186	.554	.038	.336	.738
	Age	-.057	.288	-.020	-.199	.843
	Free School Meals	1.897	1.985	.314	.956	.343
	Index Multiple Deprivation	1.342	3.215	.044	.417	.678
	Adverse Life Events	.011	.054	.019	.195	.846
	Gender	.580	.657	.101	.882	.382
	SDQ conduct scale time 1	.771	.113	.698	6.825	.000
	Free school meals interaction term	-1.296	1.457	-.297	-.889	.378

a. Dependent Variable: SDQ conduct scale at time 2

Hyperactivity SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.748	2.100		1.785	.079
	Experimental condition	.371	.509	.076	.730	.468
	Age	-.177	.286	-.061	-.620	.537
	Free School Meals	.174	.632	.029	.276	.784
	Index Multiple Deprivation	1.911	3.237	.062	.590	.557
	Adverse Life Events	-.049	.054	-.088	-.900	.372
	Gender	-.562	.586	-.097	-.959	.341
	SDQ hyperactivity scale time 1	.541	.093	.602	5.791	.000
2	(Constant)	3.113	2.328		1.337	.186
	Experimental condition	.521	.562	.106	.928	.357
	Age	-.138	.294	-.048	-.470	.640
	Free School Meals	1.380	1.969	.228	.701	.486
	Index Multiple Deprivation	1.954	3.253	.064	.601	.550
	Adverse Life Events	-.051	.055	-.092	-.933	.354
	Gender	-.376	.656	-.065	-.573	.569
	SDQ hyperactivity scale time 1	.542	.094	.603	5.770	.000
	Free school meals interaction term	-.937	1.449	-.214	-.647	.520

a. Dependent Variable: SDQ hyperactivity scale at time 2

Pro-social SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.792	1.882		1.484	.143
	Experimental condition	-.699	.489	-.158	-1.430	.158
	Age	.087	.268	.033	.324	.747
	Free School Meals	.638	.593	.117	1.076	.286
	Index Multiple Deprivation	1.089	3.037	.039	.358	.721
	Adverse Life Events	.014	.052	.028	.271	.787
	Gender	.164	.558	.032	.295	.769
	SDQ Pro-social scale time 1	.438	.092	.508	4.741	.000
2	(Constant)	2.898	2.101		1.379	.173
	Experimental condition	-.724	.538	-.164	-1.346	.184
	Age	.080	.277	.031	.290	.773
	Free School Meals	.430	1.879	.079	.229	.820
	Index Multiple Deprivation	1.078	3.064	.039	.352	.726
	Adverse Life Events	.014	.052	.029	.276	.783
	Gender	.132	.629	.025	.209	.835
	SDQ Pro-social scale time 1	.438	.093	.509	4.699	.000
	Free school meals interaction term	.162	1.384	.041	.117	.907

a. Dependent Variable: SDQ Pro-social scale at time 2

Peer SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	1.911		.486	.629
	Experimental condition	.386	.483	.073	.799	.427
	Age	-.400	.272	-.129	-1.472	.146
	Free School Meals	.899	.598	.138	1.502	.138
	Index Multiple Deprivation	-1.703	3.076	-.052	-.554	.582
	Adverse Life Events	-.002	.053	-.004	-.040	.968
	Gender	.636	.558	.103	1.141	.258
	SDQ peer scale time 1	.859	.104	.748	8.252	.000
2	(Constant)	-.131	2.171		-.060	.952
	Experimental condition	.617	.532	.118	1.159	.251
	Age	-.346	.277	-.111	-1.251	.216
	Free School Meals	2.763	1.910	.426	1.446	.153
	Index Multiple Deprivation	-1.542	3.079	-.047	-.501	.618
	Adverse Life Events	-.004	.053	-.006	-.072	.943
	Gender	.937	.629	.151	1.489	.142
	SDQ peer scale time 1	.879	.106	.765	8.303	.000
	Free school meals interaction term	-1.441	1.402	-.307	-1.028	.308

a. Dependent Variable: SDQ peer scale at time 2

Total SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.910	5.241		.937	.353
	Experimental condition	.504	1.315	.035	.383	.703
	Age	-.868	.734	-.101	-1.183	.241
	Free School Meals	3.206	1.656	.178	1.936	.058
	Index Multiple Deprivation	-.835	8.251	-.009	-.101	.920
	Adverse Life Events	-.154	.141	-.093	-1.093	.279
	Gender	.563	1.501	,033	.375	.709
	Time 1 SDQ total	.899	.102	.777	8.805	.000
2	(Constant)	3.267	5.790		.564	.575
	Experimental condition	2.426	3.113	.167	.779	.439
	Age	-1.052	.785	-.122	-1.341	.185
	Free School Meals	3.186	1.664	.177	1.914	.060
	Index Multiple Deprivation	16.435	26.644	.180	.617	.540
	Adverse Life Events	-.177	.145	-.107	-1.219	.228
	Gender	.617	1.510	.036	.409	.684
	Time 1 SDQ total	.896	.103	.775	8.732	.000
	Index Multiple Deprivation interaction term	-12.761	18.710	-.205	-.682	.498

a. Dependent Variable: Time 2 SDQ total

Emotional SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.755	1.548		1.780	.080
	Experimental condition	.083	.402	.017	.207	.836
	Age	-.259	.227	-.091	-1.139	.259
	Free School Meals	1.223	.504	.205	2.426	.018
	Index Multiple Deprivation	-.771	2.527	-.025	-.305	.761
	Adverse Life Events	-.117	.043	-.214	-2.695	.009
	Gender	-.200	.473	-.035	-.423	.674
	SDQ emotional scale time 1	.787	.080	.816	9.829	.000
2	(Constant)	2.839	1.746		1.626	.109
	Experimental condition	-.010	.962	-.002	-.011	.992
	Age	-.250	.243	-.088	-1.030	.307
	Free School Meals	1.225	.509	.206	2.408	.019
	Index Multiple Deprivation	-1.610	8.232	-.053	-.196	.846
	Adverse Life Events	-.116	.045	-.212	-2.581	.012
	Gender	-.204	.478	-.036	-.427	.671
	SDQ emotional scale time 1	.788	.081	.817	9.709	.000
	Index Multiple Deprivation interaction term	.619	5.778	.030	.107	.915

a. Dependent Variable: SDQ emotional scale at time 2

Conduct SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.100	1.978		.556	.580
	Experimental condition	-.019	.503	-.004	-.037	.971
	Age	-.107	.282	-.037	-.380	.705
	Free School Meals	.222	.623	.037	.356	.723
	Index Multiple Deprivation	1.200	3.206	.039	.374	.709
	Adverse Life Events	.014	.054	.026	.264	.793
	Gender	.309	.582	.054	.531	.597
	SDQ conduct scale time 1	.754	.111	.682	6.784	.000
2	(Constant)	.691	2.193		.315	.754
	Experimental condition	.465	1.198	.095	.388	.700
	Age	-.153	.302	-.053	-.506	.614
	Free School Meals	.217	.627	.036	.346	.730
	Index Multiple Deprivation	5.526	10.248	.180	.539	.592
	Adverse Life Events	.009	.056	.015	.152	.880
	Gender	.320	.586	.056	.547	.587
	SDQ conduct scale time 1	.750	.112	.679	6.691	.000
	Index Multiple Deprivation interaction term	-3.207	7.210	-.153	-.445	.658

a. Dependent Variable: SDQ conduct scale at time 2

Hyperactivity SDQ – Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.748	2.100		1.785	.079
	Experimental condition	.371	.509	.076	.730	.468
	Age	-.177	.286	-.061	-.620	.537
	Free School Meals	.174	.632	.029	.276	.784
	Index Multiple Deprivation	1.911	3.237	.062	.590	.557
	Adverse Life Events	-.049	.054	-.088	-.900	.372
	Gender	-.562	.586	-.097	-.959	.341
	SDQ hyperactivity scale time 1	.541	.093	.602	5.791	.000
2	(Constant)	2.530	2.292		1.104	.274
	Experimental condition	1.756	1.188	.358	1.478	.145
	Age	-.311	.303	-.107	-1.028	.308
	Free School Meals	.168	.629	.028	.266	.791
	Index Multiple Deprivation	14.372	10.193	.467	1.410	.164
	Adverse Life Events	-.066	.056	-.118	-1.184	.241
	Gender	-.520	.584	-.090	-.891	.377
	SDQ hyperactivity scale time 1	.542	.093	.603	5.826	.000
	Index Multiple Deprivation interaction term	-9.206	7.145	-.439	-1.289	.203

a. Dependent Variable: SDQ hyperactivity scale at time 2

Pro-social SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.792	1.882		1.484	.143
	Experimental condition	-.699	.489	-.158	-1.430	.158
	Age	.087	.268	.033	.324	.747
	Free School Meals	.638	.593	.117	1.076	.286
	Index Multiple Deprivation	1.089	3.037	.039	.358	.721
	Adverse Life Events	.014	.052	.028	.271	.787
	Gender	.164	.558	.032	.295	.769
	SDQ Pro-social scale time 1	.438	.092	.508	4.741	.000
2	(Constant)	2.235	2.089		1.070	.289
	Experimental condition	-.052	1.140	-.012	-.046	.964
	Age	.024	.288	.009	.085	.933
	Free School Meals	.636	.596	.116	1.067	.290
	Index Multiple Deprivation	6.943	9.798	.250	.709	.481
	Adverse Life Events	.006	.053	.012	.112	.911
	Gender	.187	.562	.036	.333	.740
	SDQ Pro-social scale time 1	.435	.093	.505	4.681	.000
	Index Multiple Deprivation interaction term	-4.318	6.867	-.228	-.629	.532

a. Dependent Variable: SDQ Pro-social scale at time 2

Peer SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	1.911		.486	.629
	Experimental condition	.386	.483	.073	.799	.427
	Age	-.400	.272	-.129	-1.472	.146
	Free School Meals	.899	.598	.138	1.502	.138
	Index Multiple Deprivation	-1.703	3.076	-.052	-.554	.582
	Adverse Life Events	-.002	.053	-.004	-.040	.968
	Gender	.636	.558	.103	1.141	.258
	SDQ peer scale time 1	.859	.104	.748	8.252	.000
2	(Constant)	.631	2.146		.294	.770
	Experimental condition	.714	1.151	.136	.620	.538
	Age	-.432	.293	-.139	-1.478	.145
	Free School Meals	.899	.603	.138	1.490	.141
	Index Multiple Deprivation	1.256	9.914	.038	.127	.900
	Adverse Life Events	-.006	.054	-.010	-.109	.913
	Gender	.648	.563	.105	1.151	.255
	SDQ peer scale time 1	.861	.105	.750	8.193	.000
	Index Multiple Deprivation interaction term	-2.179	6.934	-.097	-.314	.754

a. Dependent Variable: SDQ peer scale at time 2

Total SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.910	5.241		.937	.353
	Experimental condition	.504	1.315	.035	.383	.703
	Age	-.868	.734	-.101	-1.183	.241
	Free School Meals	3.206	1.656	.178	1.936	.058
	Index Multiple Deprivation	-.835	8.251	-.009	-.101	.920
	Adverse Life Events	-.154	.141	-.093	-1.093	.279
	Gender	.563	1.501	.033	.375	.709
	Time 1 SDQ total	.899	.102	.777	8.805	.000
2	(Constant)	4.512	11.730		.385	.702
	Experimental condition	.803	7.987	.055	.101	.920
	Age	-.779	2.453	-.090	-.318	.752
	Free School Meals	3.215	1.687	.179	1.906	.062
	Index Multiple Deprivation	-.949	8.844	-.010	-.107	.915
	Adverse Life Events	-.154	.143	-.094	-1.080	.285
	Gender	.566	1.517	.033	.373	.710
	Time 1 SDQ total	.898	.105	.777	8.570	.000
	Age interaction term	-.062	1.637	-.023	-.038	.970

a. Dependent Variable: Time 2 SDQ total

Emotional SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.755	1.548		1.780	.080
	Experimental condition	.083	.402	.017	.207	.836
	Age	-.259	.227	-.091	-1.139	.259
	Free School Meals	1.223	.504	.205	2.426	.018
	Index Multiple Deprivation	-.771	2.527	-.025	-.305	.761
	Adverse Life Events	-.117	.043	-.214	-2.695	.009
	Gender	-.200	.473	-.035	-.423	.674
	SDQ emotional scale time 1	.787	.080	.816	9.829	.000
2	(Constant)	2.912	3.695		.788	.434
	Experimental condition	-.030	2.453	-.006	-.012	.990
	Age	-.293	.759	-.103	-.386	.701
	Free School Meals	1.220	.514	.205	2.375	.021
	Index Multiple Deprivation	-.729	2.702	-.024	-.270	.788
	Adverse Life Events	-.117	.044	-.214	-2.654	.010
	Gender	-.203	.481	-.036	-.422	.674
	SDQ emotional scale time 1	.788	.082	.817	9.554	.000
	Age interaction term	.024	.503	.026	.047	.963

a. Dependent Variable: SDQ emotional scale at time 2

Conduct SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.100	1.978		.556	.580
	Experimental condition	-.019	.503	-.004	-.037	.971
	Age	-.107	.282	-.037	-.380	.705
	Free School Meals	.222	.623	.037	.356	.723
	Index Multiple Deprivation	1.200	3.206	.039	.374	.709
	Adverse Life Events	.014	.054	.026	.264	.793
	Gender	.309	.582	.054	.531	.597
	SDQ conduct scale time 1	.754	.111	.682	6.784	.000
2	(Constant)	-2.585	4.469		-.578	.565
	Experimental condition	2.697	2.995	.552	.901	.371
	Age	.700	.922	.242	.759	.451
	Free School Meals	.323	.633	.053	.510	.612
	Index Multiple Deprivation	.138	3.411	.005	.041	.968
	Adverse Life Events	.008	.055	.015	.152	.879
	Gender	.343	.584	.060	.588	.559
	SDQ conduct scale time 1	.745	.112	.674	6.672	.000
	Age interaction term	-.566	.615	-.625	-.920	.361

a. Dependent Variable: SDQ conduct scale at time 2

Hyperactivity SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.748	2.100		1.785	.079
	Experimental condition	.371	.509	.076	.730	.468
	Age	-.177	.286	-.061	-.620	.537
	Free School Meals	.174	.632	.029	.276	.784
	Index Multiple Deprivation	1.911	3.237	.062	.590	.557
	Adverse Life Events	-.049	.054	-.088	-.900	.372
	Gender	-.562	.586	-.097	-.959	.341
	SDQ hyperactivity scale time 1	.541	.093	.602	5.791	.000
2	(Constant)	2.637	4.550		.580	.564
	Experimental condition	1.196	3.032	.244	.394	.695
	Age	.066	.927	.023	.071	.944
	Free School Meals	.204	.646	.034	.316	.753
	Index Multiple Deprivation	1.613	3.436	.052	.470	.640
	Adverse Life Events	-.051	.055	-.092	-.921	.361
	Gender	-.552	.592	-.096	-.932	.355
	SDQ hyperactivity scale time 1	.539	.094	.600	5.708	.000
	Age interaction term	-.172	.622	-.189	-.276	.784

a. Dependent Variable: SDQ hyperactivity scale at time 2

Pro-social SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.792	1.882		1.484	.143
	Experimental condition	-.699	.489	-.158	-1.430	.158
	Age	.087	.268	.033	.324	.747
	Free School Meals	.638	.593	.117	1.076	.286
	Index Multiple Deprivation	1.089	3.037	.039	.358	.721
	Adverse Life Events	.014	.052	.028	.271	.787
	Gender	.164	.558	.032	.295	.769
	SDQ Pro-social scale time 1	.438	.092	.508	4.741	.000
2	(Constant)	5.380	4.349		1.237	.221
	Experimental condition	-2.574	2.880	-.582	-.894	.375
	Age	-.467	.881	-.179	-.530	.598
	Free School Meals	.567	.605	.104	.938	.352
	Index Multiple Deprivation	1.810	3.241	.065	.559	.579
	Adverse Life Events	.018	.052	.036	.348	.729
	Gender	.142	.562	.027	.253	.801
	SDQ Pro-social scale time 1	.432	.093	.502	4.639	.000
	Age interaction term	.390	.590	.476	.661	.511

a. Dependent Variable: SDQ Pro-social scale at time 2

Peer SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	1.911		.486	.629
	Experimental condition	.386	.483	.073	.799	.427
	Age	-.400	.272	-.129	-1.472	.146
	Free School Meals	.899	.598	.138	1.502	.138
	Index Multiple Deprivation	-1.703	3.076	-.052	-.554	.582
	Adverse Life Events	-.002	.053	-.004	-.040	.968
	Gender	.636	.558	.103	1.141	.258
	SDQ peer scale time 1	.859	.104	.748	8.252	.000
2	(Constant)	2.477	4.319		.574	.568
	Experimental condition	-.761	2.905	-.145	-.262	.794
	Age	-.742	.896	-.239	-.828	.411
	Free School Meals	.857	.611	.132	1.402	.166
	Index Multiple Deprivation	-1.248	3.300	-.038	-.378	.707
	Adverse Life Events	.001	.054	.002	.018	.985
	Gender	.623	.562	.101	1.107	.273
	SDQ peer scale time 1	.865	.106	.752	8.178	.000
	Age interaction term	.239	.597	.246	.400	.690

a. Dependent Variable: SDQ peer scale at time 2

Appendix 26: Multiple regression moderating variables time 2 to time 3

Total SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.874	4.343		2.734	.008
	Experimental condition	-3.402	1.097	-.241	-3.101	.003
	Age	.216	.603	.026	.359	.721
	Free School Meals	2.467	1.413	.136	1.745	.086
	Index Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
	Adverse Life Events	-.253	.119	-.158	-2.116	.039
	Gender	-1.697	1.241	-.101	-1.368	.177
	Time 2 SDQ total	.740	.070	.769	10.520	.000
2	(Constant)	10.821	5.488		1.972	.054
	Experimental condition	-2.704	2.457	-.191	-1.101	.276
	Age	.202	.609	.024	.332	.741
	Free School Meals	2.435	1.428	.134	1.705	.094
	Index Multiple Deprivation	-9.403	6.970	-.108	-1.349	.183
	Adverse Life Events	-.129	.409	-.080	-.314	.754
	Gender	-1.630	1.268	-.097	-1.286	.204
	Time 2 SDQ total	.743	.072	.772	10.393	.000
	Adverse Life Events interaction term	-.079	.250	-.100	-.318	.752

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	1.410		2.276	.027
	Experimental condition	-.625	.370	-.160	-1.688	.097
	Age	-.230	.204	-.100	-1.127	.265
	Free School Meals	.843	.479	.168	1.759	.084
	Index Multiple Deprivation	-.509	2.281	-.021	-.223	.824
	Adverse Life Events	-.014	.040	-.033	-.356	.723
	Gender	-.316	.425	-.068	-.744	.460
	SDQ emotional scale time 2	.571	.073	.707	7.867	.000
2	(Constant)	2.120	1.770		1.198	.236
	Experimental condition	.128	.828	.033	.154	.878
	Age	-.247	.205	-.108	-1.204	.234
	Free School Meals	.809	.480	.161	1.686	.097
	Index Multiple Deprivation	-1.063	2.344	-.044	-.454	.652
	Adverse Life Events	.119	.137	.269	.867	.390
	Gender	-.254	.429	-.055	-.592	.556
	SDQ emotional scale time 2	.581	.073	.720	7.935	.000
	Adverse Life Events interaction term	-.085	.084	-.389	-1.017	.314

a. Dependent Variable: SDQ emotional scale time 3

Conduct SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.616	1.760		2.055	.044
	Experimental condition	-.905	.456	-.192	-1.986	.052
	Age	.216	.252	.078	.858	.395
	Free School Meals	.159	.590	.026	.270	.788
	Index Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
	Adverse Life Events	-.116	.050	-.218	-2.346	.023
	Gender	-.901	.518	-.161	-1.741	.087
	SDQ conduct scale time 2	.633	.087	.661	7.253	.000
2	(Constant)	4.599	2.258		2.037	.046
	Experimental condition	-1.555	1.036	-.330	-1.501	.139
	Age	.231	.254	.084	.911	.366
	Free School Meals	.182	.594	.030	.307	.760
	Index Multiple Deprivation	-1.021	2.898	-.035	-.352	.726
	Adverse Life Events	-.231	.171	-.433	-1.348	.183
	Gender	-.964	.528	-.172	-1.827	.073
	SDQ conduct scale time 2	.619	.090	.646	6.876	.000
	Adverse Life Events interaction term	.074	.106	.279	.700	.487

a. Dependent Variable: SDQ conduct scale time 3

Hyperactivity SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.474	2.183		1.133	.262
	Experimental condition	-.761	.524	-.131	-1.452	.152
	Age	.091	.289	.027	.314	.755
	Free School Meals	1.397	.671	.186	2.082	.042
	Index Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
	Adverse Life Events	-.053	.057	-.081	-.934	.354
	Gender	-.684	.603	-.099	-1.133	.262
	SDQ hyperactivity scale time 2	.899	.109	.735	8.266	.000
2	(Constant)	.694	2.687		.258	.797
	Experimental condition	.401	1.152	.069	.348	.729
	Age	.072	.289	.021	.248	.805
	Free School Meals	1.346	.671	.179	2.007	.050
	Index Multiple Deprivation	-4.015	3.330	-.112	-1.206	.233
	Adverse Life Events	.154	.192	.234	.803	.426
	Gender	-.559	.612	-.081	-.914	.365
	SDQ hyperactivity scale time 2	.912	.109	.746	8.360	.000
	Adverse Life Events interaction term	-.132	.117	-.405	-1.132	.263

a. Dependent Variable: SDQ hyperactivity scale time 3

Pro-social SDQ –Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	2.053		.934	.354
	Experimental condition	.298	.535	.061	.558	.579
	Age	-.385	.282	-.134	-1.362	.179
	Free School Meals	-.551	.676	-.088	-.814	.419
	Index Multiple Deprivation	4.372	3.164	.145	1.382	.172
	Adverse Life Events	.056	.056	.101	1.008	.318
	Gender	.137	.583	.024	.236	.815
	SDQ Pro-social scale time 2	.734	.121	.660	6.052	.000
2	(Constant)	1.217	2.483		.490	.626
	Experimental condition	.814	1.147	.167	.710	.481
	Age	-.395	.285	-.138	-1.385	.172
	Free School Meals	-.562	.681	-.089	-.826	.413
	Index Multiple Deprivation	4.005	3.266	.133	1.226	.225
	Adverse Life Events	.149	.191	.270	.780	.438
	Gender	.190	.596	.033	.319	.751
	SDQ Pro-social scale time 2	.725	.123	.651	5.869	.000
	Adverse Life Events interaction term	-.060	.117	-.218	-.509	.613

a. Dependent Variable: SDQ Pro-social scale time 3

Peer SDQ – Adverse Life Events as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.771	1.555		1.139	.260
	Experimental condition	-1.157	.400	-.224	-2.894	.005
	Age	.230	.220	.076	1.044	.301
	Free School Meals	.042	.518	.006	.082	.935
	Index Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
	Adverse Life Events	-.060	.044	-.103	-1.378	.173
	Gender	.521	.453	.085	1.150	.255
	SDQ peer scale time 2	.746	.073	.763	10.276	.000
2	(Constant)	3.051	1.904		1.602	.115
	Experimental condition	-2.078	.890	-.402	-2.334	.023
	Age	.249	.220	.082	1.133	.262
	Free School Meals	.077	.518	.012	.149	.882
	Index Multiple Deprivation	-4.117	2.560	-.129	-1.608	.113
	Adverse Life Events	-.222	.146	-.379	-1.518	.135
	Gender	.436	.458	.071	.952	.345
	SDQ peer scale time 2	.752	.073	.769	10.363	.000
	Adverse Life Events interaction term	.104	.090	.358	1.158	.252

a. Dependent Variable: SDQ peer scale time 3

Total SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.874	4.343		2.734	.008
	Experimental condition	-3.402	1.097	-.241	-3.101	.003
	Age	.216	.603	.026	.359	.721
	Free School Meals	2.467	1.413	.136	1.745	.086
	Index Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
	Adverse Life Events	-.253	.119	-.158	-2.116	.039
	Gender	-1.697	1.241	-.101	-1.368	.177
	Time 2 SDQ total	.740	.070	.769	10.520	.000
2	(Constant)	13.897	7.386		1.882	.065
	Experimental condition	-4.537	3.517	-.321	-1.290	.202
	Age	.193	.611	.023	.315	.754
	Free School Meals	2.340	1.472	.129	1.589	.118
	Index Multiple Deprivation	-9.090	6.808	-.104	-1.335	.187
	Adverse Life Events	-.259	.122	-.162	-2.127	.038
	Gender	-3.068	4.221	-.183	-.727	.470
	Time 2 SDQ total	.735	.073	.764	10.136	.000
	Gender interaction term	.906	2.665	.120	.340	.735

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	1.410		2.276	.027
	Experimental condition	-.625	.370	-.160	-1.688	.097
	Age	-.230	.204	-.100	-1.127	.265
	Free School Meals	.843	.479	.168	1.759	.084
	Index Multiple Deprivation	-.509	2.281	-.021	-.223	.824
	Adverse Life Events	-.014	.040	-.033	-.356	.723
	Gender	-.316	.425	-.068	-.744	.460
	SDQ emotional scale time 2	.571	.073	.707	7.867	.000
2	(Constant)	4.096	2.394		1.711	.093
	Experimental condition	-1.146	1.190	-.293	-.963	.340
	Age	-.240	.207	-.105	-1.159	.251
	Free School Meals	.785	.499	.156	1.574	.121
	Index Multiple Deprivation	-.591	2.304	-.024	-.256	.799
	Adverse Life Events	-.017	.041	-.039	-.421	.675
	Gender	-.935	1.411	-.202	-.663	.510
	SDQ emotional scale time 2	.565	.074	.700	7.596	.000
	Gender interaction term	.414	.898	.198	.461	.647

a. Dependent Variable: SDQ emotional scale time 3

Conduct SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.616	1.760		2.055	.044
	Experimental condition	-.905	.456	-.192	-1.986	.052
	Age	.216	.252	.078	.858	.395
	Free School Meals	.159	.590	.026	.270	.788
	Index Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
	Adverse Life Events	-.116	.050	-.218	-2.346	.023
	Gender	-.901	.518	-.161	-1.741	.087
	SDQ conduct scale time 2	.633	.087	.661	7.253	.000
2	(Constant)	4.647	3.032		1.533	.131
	Experimental condition	-1.494	1.479	-.317	-1.010	.317
	Age	.205	.255	.074	.807	.423
	Free School Meals	.089	.617	.015	.145	.885
	Index Multiple Deprivation	-1.583	2.847	-.054	-.556	.580
	Adverse Life Events	-.119	.050	-.223	-2.362	.022
	Gender	-1.610	1.771	-.288	-.909	.367
	SDQ conduct scale time 2	.624	.091	.651	6.893	.000
	Gender interaction term	.469	1.119	.185	.419	.677

a. Dependent Variable: SDQ conduct scale time 3

Hyperactivity SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.474	2.183		1.133	.262
	Experimental condition	-.761	.524	-.131	-1.452	.152
	Age	.091	.289	.027	.314	.755
	Free School Meals	1.397	.671	.186	2.082	.042
	Index Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
	Adverse Life Events	-.053	.057	-.081	-.934	.354
	Gender	-.684	.603	-.099	-1.133	.262
	SDQ hyperactivity scale time 2	.899	.109	.735	8.266	.000
2	(Constant)	6.354	3.439		1.848	.070
	Experimental condition	-2.985	1.619	-.513	-1.844	.070
	Age	.042	.288	.012	.147	.884
	Free School Meals	1.144	.687	.153	1.666	.101
	Index Multiple Deprivation	-3.375	3.211	-.094	-1.051	.298
	Adverse Life Events	-.065	.057	-.099	-1.145	.257
	Gender	-3.372	1.947	-.488	-1.732	.089
	SDQ hyperactivity scale time 2	.886	.108	.725	8.197	.000
	Gender interaction term	1.770	1.220	.567	1.451	.152

a. Dependent Variable: SDQ hyperactivity scale time 3

Pro-social SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	2.053		.934	.354
	Experimental condition	.298	.535	.061	.558	.579
	Age	-.385	.282	-.134	-1.362	.179
	Free School Meals	-.551	.676	-.088	-.814	.419
	Index Multiple Deprivation	4.372	3.164	.145	1.382	.172
	Adverse Life Events	.056	.056	.101	1.008	.318
	Gender	.137	.583	.024	.236	.815
	SDQ Pro-social scale time 2	.734	.121	.660	6.052	.000
2	(Constant)	2.315	3.377		.685	.496
	Experimental condition	.066	1.652	.013	.040	.968
	Age	-.389	.286	-.136	-1.358	.180
	Free School Meals	-.575	.701	-.092	-.820	.416
	Index Multiple Deprivation	4.340	3.199	.144	1.356	.180
	Adverse Life Events	.055	.057	.099	.970	.336
	Gender	-.138	1.939	-.024	-.071	.944
	SDQ Pro-social scale time 2	.732	.123	.658	5.965	.000
	Gender interaction term	.183	1.227	.070	.149	.882

a. Dependent Variable: SDQ Pro-social scale time 3

Peer SDQ – gender as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.771	1.555		1.139	.260
	Experimental condition	-1.157	.400	-.224	-2.894	.005
	Age	.230	.220	.076	1.044	.301
	Free School Meals	.042	.518	.006	.082	.935
	Index Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
	Adverse Life Events	-.060	.044	-.103	-1.378	.173
	Gender	.521	.453	.085	1.150	.255
	SDQ peer scale time 2	.746	.073	.763	10.276	.000
2	(Constant)	-.879	2.573		-.342	.734
	Experimental condition	.378	1.256	.073	.301	.765
	Age	.261	.220	.086	1.183	.242
	Free School Meals	.210	.532	.032	.395	.695
	Index Multiple Deprivation	-4.523	2.490	-.141	-1.816	.075
	Adverse Life Events	-.052	.044	-.088	-1.175	.245
	Gender	2.362	1.498	.385	1.576	.121
	SDQ peer scale time 2	.757	.073	.775	10.415	.000
	Gender interaction term	-1.220	.947	-.440	-1.288	.203

a. Dependent Variable: SDQ peer scale time 3

Total SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.874	4.343		2.734	.008
	Experimental condition	-3.402	1.097	-.241	-3.101	.003
	Age	.216	.603	.026	.359	.721
	Free School Meals	2.467	1.413	.136	1.745	.086
	Index Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
	Adverse Life Events	-.253	.119	-.158	-2.116	.039
	Gender	-1.697	1.241	-.101	-1.368	.177
	Time 2 SDQ total	.740	.070	.769	10.520	.000
2	(Constant)	12.240	4.829		2.535	.014
	Experimental condition	-3.484	1.197	-.247	-2.911	.005
	Age	.198	.616	.024	.321	.750
	Free School Meals	1.717	4.401	.094	.390	.698
	Index Multiple Deprivation	-8.952	6.797	-.102	-1.317	.193
	Adverse Life Events	-.253	.121	-.158	-2.102	.040
	Gender	-1.799	1.375	-.107	-1.309	.196
	Time 2 SDQ total	.739	.071	.768	10.396	.000
	Free school meals interaction term	.596	3.311	.044	.180	.858

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	1.410		2.276	.027
	Experimental condition	-.625	.370	-.160	-1.688	.097
	Age	-.230	.204	-.100	-1.127	.265
	Free School Meals	.843	.479	.168	1.759	.084
	Index Multiple Deprivation	-.509	2.281	-.021	-.223	.824
	Adverse Life Events	-.014	.040	-.033	-.356	.723
	Gender	-.316	.425	-.068	-.744	.460
	SDQ emotional scale time 2	.571	.073	.707	7.867	.000
2	(Constant)	3.461	1.568		2.207	.031
	Experimental condition	-.685	.404	-.175	-1.693	.096
	Age	-.243	.209	-.106	-1.165	.249
	Free School Meals	.306	1.489	.061	.206	.838
	Index Multiple Deprivation	-.548	2.300	-.023	-.238	.813
	Adverse Life Events	-.015	.041	-.033	-.362	.718
	Gender	-.388	.468	-.084	-.829	.411
	SDQ emotional scale time 2	.570	.073	.706	7.781	.000
	Free school meals interaction term	.427	1.120	.114	.381	.705

a. Dependent Variable: SDQ emotional scale time 3

Conduct SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.616	1.760		2.055	.044
	Experimental condition	-.905	.456	-.192	-1.986	.052
	Age	.216	.252	.078	.858	.395
	Free School Meals	.159	.590	.026	.270	.788
	Index Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
	Adverse Life Events	-.116	.050	-.218	-2.346	.023
	Gender	-.901	.518	-.161	-1.741	.087
	SDQ conduct scale time 2	.633	.087	.661	7.253	.000
2	(Constant)	3.443	1.965		1.752	.085
	Experimental condition	-.866	.498	-.184	-1.738	.088
	Age	.224	.257	.081	.872	.387
	Free School Meals	.518	1.842	.085	.281	.780
	Index Multiple Deprivation	-1.441	2.841	-.049	-.507	.614
	Adverse Life Events	-.116	.050	-.218	-2.323	.024
	Gender	-.852	.574	-.152	-1.486	.143
	SDQ conduct scale time 2	.635	.088	.662	7.182	.000
	Free school meals interaction term	-.285	1.383	-.063	-.206	.838

a. Dependent Variable: SDQ conduct scale time 3

Hyperactivity SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.474	2.183		1.133	.262
	Experimental condition	-.761	.524	-.131	-1.452	.152
	Age	.091	.289	.027	.314	.755
	Free School Meals	1.397	.671	.186	2.082	.042
	Index Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
	Adverse Life Events	-.053	.057	-.081	-.934	.354
	Gender	-.684	.603	-.099	-1.133	.262
	SDQ hyperactivity scale time 2	.899	.109	.735	8.266	.000
2	(Constant)	2.313	2.369		.976	.333
	Experimental condition	-.720	.574	-.124	-1.253	.215
	Age	.099	.295	.029	.336	.738
	Free School Meals	1.762	2.090	.235	.843	.403
	Index Multiple Deprivation	-3.058	3.269	-.085	-.936	.354
	Adverse Life Events	-.053	.058	-.081	-.924	.359
	Gender	-.635	.662	-.092	-.959	.342
	SDQ hyperactivity scale time 2	.898	.110	.734	8.175	.000
	Free school meals interaction term	-.290	1.571	-.052	-.185	.854

a. Dependent Variable: SDQ hyperactivity scale time 3

Pro-social SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	2.053		.934	.354
	Experimental condition	.298	.535	.061	.558	.579
	Age	-.385	.282	-.134	-1.362	.179
	Free School Meals	-.551	.676	-.088	-.814	.419
	Index Multiple Deprivation	4.372	3.164	.145	1.382	.172
	Adverse Life Events	.056	.056	.101	1.008	.318
	Gender	.137	.583	.024	.236	.815
	SDQ Pro-social scale time 2	.734	.121	.660	6.052	.000
2	(Constant)	2.725	2.220		1.227	.225
	Experimental condition	.106	.572	.022	.186	.853
	Age	-.431	.287	-.150	-1.502	.139
	Free School Meals	-2.428	2.070	-.386	-1.173	.246
	Index Multiple Deprivation	4.209	3.171	.140	1.327	.190
	Adverse Life Events	.055	.056	.100	.990	.327
	Gender	-.121	.643	-.021	-.188	.851
	SDQ Pro-social scale time 2	.746	.122	.670	6.113	.000
	Free school meals interaction term	1.481	1.544	.316	.959	.341

a. Dependent Variable: SDQ Pro-social scale time 3

Peer SDQ –free school meals as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.771	1.555		1.139	.260
	Experimental condition	-1.157	.400	-.224	-2.894	.005
	Age	.230	.220	.076	1.044	.301
	Free School Meals	.042	.518	.006	.082	.935
	Index Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
	Adverse Life Events	-.060	.044	-.103	-1.378	.173
	Gender	.521	.453	.085	1.150	.255
	SDQ peer scale time 2	.746	.073	.763	10.276	.000
2	(Constant)	2.471	1.725		1.432	.158
	Experimental condition	-1.312	.433	-.254	-3.031	.004
	Age	.195	.224	.064	.872	.387
	Free School Meals	-1.379	1.598	-.207	-.863	.392
	Index Multiple Deprivation	-4.971	2.500	-.156	-1.988	.052
	Adverse Life Events	-.062	.044	-.106	-1.407	.165
	Gender	.327	.498	.053	.657	.514
	SDQ peer scale time 2	.739	.073	.756	10.114	.000
	Free school meals interaction term	1.133	1.204	.228	.941	.351

a. Dependent Variable: SDQ peer scale time 3

Total SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.874	4.343		2.734	.008
	Experimental condition	-3.402	1.097	-.241	-3.101	.003
	Age	.216	.603	.026	.359	.721
	Free School Meals	2.467	1.413	.136	1.745	.086
	Index Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
	Adverse Life Events	-.253	.119	-.158	-2.116	.039
	Gender	-1.697	1.241	-.101	-1.368	.177
	Time 2 SDQ total	.740	.070	.769	10.520	.000
2	(Constant)	11.139	4.803		2.319	.024
	Experimental condition	-2.527	2.603	-.179	-.971	.336
	Age	.136	.645	.016	.211	.834
	Free School Meals	2.482	1.425	.136	1.742	.087
	Index Multiple Deprivation	-1.165	21.892	-.013	-.053	.958
	Adverse Life Events	-.265	.125	-.166	-2.123	.038
	Gender	-1.664	1.254	-.099	-1.327	.190
	Time 2 SDQ total	.738	.071	.766	10.348	.000
	Index Multiple Deprivation interaction term	-5.732	15.435	-.097	-.371	.712

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	1.410		2.276	.027
	Experimental condition	-.625	.370	-.160	-1.688	.097
	Age	-.230	.204	-.100	-1.127	.265
	Free School Meals	.843	.479	.168	1.759	.084
	Index Multiple Deprivation	-.509	2.281	-.021	-.223	.824
	Adverse Life Events	-.014	.040	-.033	-.356	.723
	Gender	-.316	.425	-.068	-.744	.460
	SDQ emotional scale time 2	.571	.073	.707	7.867	.000
2	(Constant)	3.447	1.587		2.171	.034
	Experimental condition	-.893	.877	-.229	-1.018	.313
	Age	-.206	.218	-.090	-.944	.349
	Free School Meals	.838	.483	.167	1.735	.088
	Index Multiple Deprivation	-2.887	7.410	-.120	-.390	.698
	Adverse Life Events	-.011	.042	-.024	-.252	.802
	Gender	-.328	.430	-.071	-.763	.449
	SDQ emotional scale time 2	.573	.073	.709	7.811	.000
	Index Multiple Deprivation interaction term	1.762	5.218	.108	.338	.737

a. Dependent Variable: SDQ emotional scale time 3

Conduct SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.616	1.760		2.055	.044
	Experimental condition	-.905	.456	-.192	-1.986	.052
	Age	.216	.252	.078	.858	.395
	Free School Meals	.159	.590	.026	.270	.788
	Index Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
	Adverse Life Events	-.116	.050	-.218	-2.346	.023
	Gender	-.901	.518	-.161	-1.741	.087
	SDQ conduct scale time 2	.633	.087	.661	7.253	.000
2	(Constant)	4.256	1.958		2.173	.034
	Experimental condition	-1.644	1.079	-.349	-1.524	.133
	Age	.282	.267	.102	1.056	.296
	Free School Meals	.150	.592	.025	.253	.801
	Index Multiple Deprivation	-8.006	9.090	-.275	-.881	.382
	Adverse Life Events	-.106	.051	-.199	-2.069	.043
	Gender	-.930	.521	-.166	-1.785	.080
	SDQ conduct scale time 2	.640	.088	.668	7.265	.000
	Index Multiple Deprivation interaction term	4.852	6.415	.246	.756	.453

a. Dependent Variable: SDQ conduct scale time 3

Hyperactivity SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.474	2.183		1.133	.262
	Experimental condition	-.761	.524	-.131	-1.452	.152
	Age	.091	.289	.027	.314	.755
	Free School Meals	1.397	.671	.186	2.082	.042
	Index Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
	Adverse Life Events	-.053	.057	-.081	-.934	.354
	Gender	-.684	.603	-.099	-1.133	.262
	SDQ hyperactivity scale time 2	.899	.109	.735	8.266	.000
2	(Constant)	1.540	2.340		.658	.513
	Experimental condition	.470	1.239	.081	.379	.706
	Age	-.028	.308	-.008	-.090	.928
	Free School Meals	1.419	.670	.189	2.117	.039
	Index Multiple Deprivation	7.820	10.465	.217	.747	.458
	Adverse Life Events	-.072	.059	-.109	-1.206	.233
	Gender	-.658	.603	-.095	-1.091	.280
	SDQ hyperactivity scale time 2	.880	.110	.720	8.008	.000
	Index Multiple Deprivation interaction term	-8.014	7.312	-.328	-1.096	.278

a. Dependent Variable: SDQ hyperactivity scale time 3

Pro-social SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	2.053		.934	.354
	Experimental condition	.298	.535	.061	.558	.579
	Age	-.385	.282	-.134	-1.362	.179
	Free School Meals	-.551	.676	-.088	-.814	.419
	Index Multiple Deprivation	4.372	3.164	.145	1.382	.172
	Adverse Life Events	.056	.056	.101	1.008	.318
	Gender	.137	.583	.024	.236	.815
	SDQ Pro-social scale time 2	.734	.121	.660	6.052	.000
2	(Constant)	1.882	2.269		.829	.410
	Experimental condition	.340	1.211	.070	.281	.780
	Age	-.388	.302	-.136	-1.287	.203
	Free School Meals	-.549	.683	-.087	-.805	.424
	Index Multiple Deprivation	4.748	10.302	.157	.461	.647
	Adverse Life Events	.055	.058	.100	.955	.344
	Gender	.139	.591	.024	.236	.814
	SDQ Pro-social scale time 2	.734	.123	.659	5.968	.000
	Index Multiple Deprivation interaction term	-.278	7.235	-.014	-.038	.969

a. Dependent Variable: SDQ Pro-social scale time 3

Peer SDQ –Index Multiple Deprivation as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.771	1.555		1.139	.260
	Experimental condition	-1.157	.400	-.224	-2.894	.005
	Age	.230	.220	.076	1.044	.301
	Free School Meals	.042	.518	.006	.082	.935
	Index Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
	Adverse Life Events	-.060	.044	-.103	-1.378	.173
	Gender	.521	.453	.085	1.150	.255
	SDQ peer scale at time 2	.746	.073	.763	10.276	.000
2	(Constant)	1.173	1.738		.675	.502
	Experimental condition	-.495	.939	-.096	-.527	.600
	Age	.170	.234	.056	.724	.472
	Free School Meals	.053	.520	.008	.101	.920
	Index Multiple Deprivation	1.055	7.950	.033	.133	.895
	Adverse Life Events	-.069	.046	-.119	-1.527	.132
	Gender	.547	.456	.089	1.200	.235
	SDQ peer scale at time 2	.746	.073	.764	10.244	.000
	Index Multiple Deprivation interaction term	-4.356	5.588	-.201	-.779	.439

a. Dependent Variable: SDQ peer scale at time 3

Total SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.874	4.343		2.734	.008
	Experimental condition	-3.402	1.097	-.241	-3.101	.003
	Age	.216	.603	.026	.359	.721
	Free School Meals	2.467	1.413	.136	1.745	.086
	Index Multiple Deprivation	-8.895	6.731	-.102	-1.321	.192
	Adverse Life Events	-.253	.119	-.158	-2.116	.039
	Gender	-1.697	1.241	-.101	-1.368	.177
	Time 2 SDQ total	.740	.070	.769	10.520	.000
2	(Constant)	33.722	8.962		3.763	.000
	Experimental condition	-19.822	6.073	-1.404	-3.264	.002
	Age	-4.624	1.854	-.558	-2.494	.016
	Free School Meals	1.865	1.357	.102	1.374	.175
	Index Multiple Deprivation	-2.714	6.762	-.031	-.401	.690
	Adverse Life Events	-.217	.114	-.135	-1.901	.062
	Gender	-1.865	1.177	-.111	-1.584	.119
	Time 2 SDQ total	.766	.067	.796	11.380	.000
	Age interaction term	3.427	1.249	1.294	2.744	.008

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.208	1.410		2.276	.027
	Experimental condition	-.625	.370	-.160	-1.688	.097
	Age	-.230	.204	-.100	-1.127	.265
	Free School Meals	.843	.479	.168	1.759	.084
	Index Multiple Deprivation	-.509	2.281	-.021	-.223	.824
	Adverse Life Events	-.014	.040	-.033	-.356	.723
	Gender	-.316	.425	-.068	-.744	.460
	SDQ emotional scale time 2	.571	.073	.707	7.867	.000
2	(Constant)	8.262	3.173		2.604	.012
	Experimental condition	-4.359	2.140	-1.116	-2.037	.046
	Age	-1.335	.656	-.582	-2.037	.046
	Free School Meals	.706	.477	.140	1.480	.144
	Index Multiple Deprivation	.883	2.373	.037	.372	.711
	Adverse Life Events	-.006	.040	-.014	-.153	.879
	Gender	-.375	.418	-.081	-.895	.375
	SDQ emotional scale time 2	.592	.072	.734	8.196	.000
	Age interaction term	.780	.441	1.065	1.770	.082

a. Dependent Variable: SDQ emotional scale time 3

Conduct SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.616	1.760		2.055	.044
	Experimental condition	-.905	.456	-.192	-1.986	.052
	Age	.216	.252	.078	.858	.395
	Free School Meals	.159	.590	.026	.270	.788
	Index Multiple Deprivation	-1.470	2.814	-.050	-.523	.603
	Adverse Life Events	-.116	.050	-.218	-2.346	.023
	Gender	-.901	.518	-.161	-1.741	.087
	SDQ conduct scale time 2	.633	.087	.661	7.253	.000
2	(Constant)	9.356	3.892		2.404	.020
	Experimental condition	-5.172	2.629	-1.098	-1.968	.054
	Age	-1.048	.806	-.379	-1.300	.199
	Free School Meals	.013	.588	.002	.022	.983
	Index Multiple Deprivation	.158	2.943	.005	.054	.957
	Adverse Life Events	-.109	.049	-.204	-2.220	.031
	Gender	-.946	.511	-.169	-1.851	.069
	SDQ conduct scale time 2	.652	.087	.680	7.512	.000
	Age interaction term	.892	.541	1.009	1.647	.105

a. Dependent Variable: SDQ conduct scale time 3

Hyperactivity SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.474	2.183		1.133	.262
	Experimental condition	-.761	.524	-.131	-1.452	.152
	Age	.091	.289	.027	.314	.755
	Free School Meals	1.397	.671	.186	2.082	.042
	Index Multiple Deprivation	-3.090	3.236	-.086	-.955	.344
	Adverse Life Events	-.053	.057	-.081	-.934	.354
	Gender	-.684	.603	-.099	-1.133	.262
	SDQ hyperactivity scale time 2	.899	.109	.735	8.266	.000
2	(Constant)	8.975	4.466		2.009	.049
	Experimental condition	-5.632	2.978	-.968	-1.891	.064
	Age	-1.342	.909	-.393	-1.477	.145
	Free School Meals	1.221	.669	.163	1.825	.073
	Index Multiple Deprivation	-1.348	3.356	-.037	-.402	.689
	Adverse Life Events	-.043	.057	-.065	-.758	.452
	Gender	-.720	.595	-.104	-1.211	.231
	SDQ hyperactivity scale time 2	.913	.107	.747	8.498	.000
	Age interaction term	1.017	.612	.932	1.661	.102

a. Dependent Variable: SDQ hyperactivity scale time 3

Pro-social SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	2.053		.934	.354
	Experimental condition	.298	.535	.061	.558	.579
	Age	-.385	.282	-.134	-1.362	.179
	Free School Meals	-.551	.676	-.088	-.814	.419
	Index Multiple Deprivation	4.372	3.164	.145	1.382	.172
	Adverse Life Events	.056	.056	.101	1.008	.318
	Gender	.137	.583	.024	.236	.815
	SDQ Pro-social scale time 2	.734	.121	.660	6.052	.000
2	(Constant)	2.708	4.600		.589	.558
	Experimental condition	-.275	3.029	-.056	-.091	.928
	Age	-.553	.921	-.193	-.600	.551
	Free School Meals	-.568	.688	-.090	-.826	.412
	Index Multiple Deprivation	4.590	3.386	.152	1.355	.181
	Adverse Life Events	.057	.056	.103	1.014	.315
	Gender	.132	.589	.023	.224	.823
	SDQ Pro-social scale time 2	.732	.123	.657	5.949	.000
	Age interaction term	.119	.620	.130	.192	.848

a. Dependent Variable: SDQ Pro-social scale time 3

Peer SDQ – age as a moderator

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.771	1.555		1.139	.260
	Experimental condition	-1.157	.400	-.224	-2.894	.005
	Age	.230	.220	.076	1.044	.301
	Free School Meals	.042	.518	.006	.082	.935
	Index Multiple Deprivation	-4.828	2.493	-.151	-1.936	.058
	Adverse Life Events	-.060	.044	-.103	-1.378	.173
	Gender	.521	.453	.085	1.150	.255
	SDQ peer scale time 2	.746	.073	.763	10.276	.000
2	(Constant)	5.213	3.456		1.509	.137
	Experimental condition	-3.698	2.314	-.715	-1.598	.116
	Age	-.521	.709	-.172	-.735	.465
	Free School Meals	-.051	.524	-.008	-.097	.923
	Index Multiple Deprivation	-3.861	2.634	-.121	-1.466	.148
	Adverse Life Events	-.055	.044	-.094	-1.257	.214
	Gender	.493	.453	.080	1.088	.281
	SDQ peer scale time 2	.749	.072	.767	10.338	.000
	Age interaction term	.531	.477	.548	1.115	.270

a. Dependent Variable: SDQ peer scale time 3

Appendix 27: Multiple regression locus of control as a mediating variable time 2 to time 3

Total SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.122	1.926		7.332	.000
	Index Multiple Deprivation	-.556	10.654	-.007	-.052	.959
2	(Constant)	17.177	7.780		2.208	.032
	Index Multiple Deprivation	-5.297	11.347	-.065	-.467	.643
	Gender	-1.466	2.141	-.091	-.685	.497
	Age	.899	1.075	.111	.836	.407
	Free School Meals	2.462	2.441	.140	1.008	.318
	Experimental condition	-1.069	1.867	-.079	-.572	.569
	Adverse Life Events	-.399	.197	-.264	-2.019	.049
3	(Constant)	8.097	4.603		1.759	.084
	Index Multiple Deprivation	-5.582	6.590	-.068	-.847	.401
	Gender	-1.453	1.244	-.090	-1.168	.248
	Age	.740	.625	.091	1.185	.241
	Free School Meals	1.483	1.421	.084	1.044	.301
	Experimental condition	-3.106	1.102	-.230	-2.818	.007
	Adverse Life Events	-.281	.115	-.186	-2.441	.018
	Time 2 SDQ total	.750	.072	.784	10.348	.000
4	(Constant)	7.405	4.519		1.639	.107
	Index Multiple Deprivation	-3.002	6.600	-.037	-.455	.651
	Gender	-1.196	1.225	-.074	-.977	.333
	Age	.567	.618	.070	.917	.363
	Free School Meals	1.220	1.398	.069	.873	.387
	Experimental condition	-2.755	1.095	-.204	-2.516	.015
	Adverse Life Events	-.249	.114	-.165	-2.185	.033
	Time 2 SDQ total	.754	.071	.789	10.632	.000
	locus of control mediator	-.424	.231	-.143	-1.834	.072

a. Dependent Variable: Time 3 SDQ total

Emotional SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.701	.518		3.284	.002
	Index Multiple Deprivation	1.756	2.866	.080	.613	.542
2	(Constant)	.806	2.164		.373	.711
	Index Multiple Deprivation	1.647	3.156	.075	.522	.604
	Gender	.543	.596	.125	.911	.366
	Age	.189	.299	.086	.632	.530
	Free School Meals	.409	.679	.086	.603	.549
	Experimental condition	-.109	.519	-.030	-.210	.834
	Adverse Life Events	-.063	.055	-.155	-1.149	.256
3	(Constant)	.893	1.358		.657	.514
	Index Multiple Deprivation	1.201	1.982	.054	.606	.547
	Gender	-.003	.379	.000	-.009	.993
	Age	.078	.188	.036	.414	.680
	Free School Meals	.184	.427	.039	.431	.669
	Experimental condition	-.411	.328	-.113	-1.255	.215
	Adverse Life Events	-.034	.035	-.084	-.984	.329
	SDQ emotional scale at time 2	.596	.065	.776	9.167	.000
4	(Constant)	.736	1.347		.546	.587
	Index Multiple Deprivation	1.833	2.005	.083	.914	.365
	Gender	.051	.376	.012	.135	.893
	Age	.033	.188	.015	.177	.860
	Free School Meals	.116	.425	.024	.273	.786
	Experimental condition	-.327	.329	-.090	-.993	.325
	Adverse Life Events	-.026	.035	-.063	-.744	.460
	SDQ emotional scale at time 2	.606	.065	.790	9.378	.000
	locus of control mediator	-.105	.071	-.132	-1.489	.143

a. Dependent Variable: SDQ emotional scale at time 3

Conduct SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.661	.668		5.484	.000
	Index Multiple Deprivation	-.644	3.693	-.023	-.174	.862
2	(Constant)	4.141	2.728		1.518	.135
	Index Multiple Deprivation	-1.866	3.978	-.066	-.469	.641
	Gender	-.818	.751	-.147	-1.090	.281
	Age	.460	.377	.163	1.221	.228
	Free School Meals	-.065	.856	-.011	-.076	.940
	Experimental condition	-.471	.655	-.100	-.719	.475
	Adverse Life Events	-.086	.069	-.164	-1.246	.218
3	(Constant)	2.583	2.005		1.289	.203
	Index Multiple Deprivation	-.854	2.909	-.030	-.293	.770
	Gender	-.780	.548	-.140	-1.423	.161
	Age	.334	.276	.119	1.211	.231
	Free School Meals	.018	.625	.003	.029	.977
	Experimental condition	-.777	.480	-.166	-1.618	.112
	Adverse Life Events	-.116	.051	-.221	-2.283	.026
	SDQ conduct scale at time 2	.630	.091	.665	6.945	.000
4	(Constant)	2.306	1.967		1.172	.246
	Index Multiple Deprivation	.282	2.913	.010	.097	.923
	Gender	-.667	.540	-.120	-1.236	.222
	Age	.259	.273	.092	.948	.348
	Free School Meals	-.096	.615	-.016	-.156	.877
	Experimental condition	-.616	.478	-.131	-1.289	.203
	Adverse Life Events	-.102	.050	-.194	-2.030	.047
	SDQ conduct scale at time 2	.628	.089	.664	7.077	.000
	locus of control mediator	-.187	.102	-.182	-1.835	.072

a. Dependent Variable: SDQ conduct scale at time 3

Hyperactivity SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.800	.805		5.961	.000
	Index Multiple Deprivation	5.421	4.454	.156	1.217	.228
2	(Constant)	9.173	3.212		2.856	.006
	Index Multiple Deprivation	2.723	4.684	.079	.581	.563
	Gender	-1.993	.884	-.293	-2.255	.028
	Age	-.116	.444	-.034	-.262	.795
	Free School Meals	1.519	1.008	.204	1.507	.138
	Experimental condition	.014	.771	.002	.018	.986
	Adverse Life Events	-.131	.082	-.204	-1.602	.115
3	(Constant)	1.633	2.268		.720	.475
	Index Multiple Deprivation	-1.964	3.100	-.057	-.633	.529
	Gender	-.795	.592	-.117	-1.342	.185
	Age	.252	.292	.073	.861	.393
	Free School Meals	1.031	.659	.139	1.565	.124
	Experimental condition	-.795	.511	-.139	-1.557	.125
	Adverse Life Events	-.068	.054	-.106	-1.269	.210
	SDQ hyperactivity scale at time 2	.923	.107	.756	8.615	.000
4	(Constant)	1.726	2.289		.754	.454
	Index Multiple Deprivation	-2.339	3.191	-.068	-.733	.467
	Gender	-.833	.600	-.122	-1.387	.171
	Age	.277	.297	.080	.930	.357
	Free School Meals	1.069	.667	.144	1.603	.115
	Experimental condition	-.848	.523	-.148	-1.623	.111
	Adverse Life Events	-.073	.055	-.113	-1.331	.189
	SDQ hyperactivity scale at time 2	.923	.108	.756	8.559	.000
	locus of control mediator	.062	.110	.049	.561	.577

a. Dependent Variable: SDQ hyperactivity scale at time 3

Pro-social SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.435	.686		6.466	.000
	Index Multiple Deprivation	6.878	3.794	.230	1.813	.075
2	(Constant)	7.238	2.838		2.550	.014
	Index Multiple Deprivation	5.058	4.139	.169	1.222	.227
	Gender	.331	.781	.056	.424	.674
	Age	-.492	.392	-.166	-1.256	.215
	Free School Meals	.556	.890	.086	.625	.535
	Experimental condition	-.794	.681	-.161	-1.166	.249
	Adverse Life Events	.063	.072	.114	.873	.386
3	(Constant)	2.335	2.325		1.004	.320
	Index Multiple Deprivation	3.658	3.195	.122	1.145	.257
	Gender	.181	.602	.031	.301	.765
	Age	-.486	.302	-.163	-1.610	.113
	Free School Meals	-.336	.701	-.052	-.479	.634
	Experimental condition	.313	.554	.063	.565	.574
	Adverse Life Events	.063	.055	.115	1.142	.258
	SDQ Pro-social scale at time 2	.749	.121	.680	6.170	.000
4	(Constant)	2.453	2.393		1.025	.310
	Index Multiple Deprivation	3.491	3.292	.117	1.061	.294
	Gender	.165	.611	.028	.269	.789
	Age	-.474	.309	-.159	-1.536	.131
	Free School Meals	-.304	.718	-.047	-.424	.673
	Experimental condition	.271	.584	.055	.464	.645
	Adverse Life Events	.061	.057	.110	1.078	.286
	SDQ Pro-social scale at time 2	.738	.130	.670	5.678	.000
	locus of control mediator	.031	.122	.028	.250	.803

a. Dependent Variable: SDQ Pro-social scale at time 3

Peer SDQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.960	.698		5.673	.000
	Index Multiple Deprivation	-7.089	3.861	-.232	-1.836	.071
2	(Constant)	3.057	2.836		1.078	.286
	Index Multiple Deprivation	-7.801	4.136	-.256	-1.886	.065
	Gender	.803	.781	.134	1.028	.308
	Age	.365	.392	.121	.933	.355
	Free School Meals	.599	.890	.091	.673	.504
	Experimental condition	-.503	.681	-.100	-.738	.463
	Adverse Life Events	-.119	.072	-.211	-1.649	.105
3	(Constant)	1.876	1.771		1.059	.294
	Index Multiple Deprivation	-4.999	2.594	-.164	-1.927	.059
	Gender	.493	.487	.082	1.012	.316
	Age	.202	.245	.067	.826	.413
	Free School Meals	.211	.556	.032	.380	.705
	Experimental condition	-1.122	.429	-.223	-2.614	.012
	Adverse Life Events	-.055	.045	-.098	-1.216	.229
	SDQ peer scale at time 2	.730	.079	.752	9.282	.000
4	(Constant)	1.608	1.730		.929	.357
	Index Multiple Deprivation	-3.914	2.584	-.128	-1.514	.136
	Gender	.601	.478	.100	1.258	.214
	Age	.130	.241	.043	.539	.592
	Free School Meals	.103	.544	.016	.190	.850
	Experimental condition	-.970	.425	-.193	-2.284	.027
	Adverse Life Events	-.042	.045	-.075	-.940	.351
	SDQ peer scale at time 2	.730	.077	.753	9.539	.000
	locus of control mediator variable	-.178	.090	-.161	-1.980	.053

a. Dependent Variable: SDQ peer scale at time 3

Appendix 28: Program Summary

Primary Anger Management. Key Stage Two Version: Learning how to deal with our angry feelings.

A six session group work course in anger management for 7 to 11 year olds based upon the Southampton Anger Management model.

Southampton Psychology Service. Edited by Colin Woodcock, expanding primary materials developed by Harrie Atkinson, Fumni Oke and Colin Woodcock.

Based on the Southampton Anger management model developed by Adrian Faupel, Liz Herrick and Peter Sharp.

Program Summary

Session 1: Getting to know each other

Outcomes

- Children will become familiar with the ground rules
- Children will share with the group information about themselves

Activities

- About the group sessions
- Establishing ground rules
- Introducing each other
- Game Activity: 'My triangle'.
- Refreshments

Session 2: What things make us angry?

Outcomes

- Children will identify some of the associations they make with anger
- Children will share with the group an occasion in which they became angry
- Children will articulate facial characteristics that help us distinguish between happy, sad and angry faces
- Children will identify specific triggers to their own anger

Activities

- Revising the ground rules
- What is anger?
- A time when I was angry…

- Making faces
- Face cards
- Refreshments

Session 3: Getting angry

Outcomes

- Children will talk about some of the physical sensations they experience in their bodies when they become angry
- Children will share with the group an occasion in which they became angry recently
- Using their own examples, children will start to identify the triggers to an incident and the subsequent fuse, thoughts/feelings and actions

Activities

- Revising the ground rules
- Where do you feel anger in your body?
- Exploding with anger
- My anger record (Homework)
- Refreshments

Session 4: Calming down – thinking differently

Outcomes

- Children will share with the group an occasion in which they became angry recently
- Using their own examples, children will start to identify the triggers to an incident and the subsequent fuse thoughts/feelings and actions
- Children will identify alternative interpretative to a range of potentially anger inducing scenarios

Activities

- Revising the ground rules
- My anger record
- Seeing things differently
- Thinking about things differently
- My anger record (Homework)
- Refreshments

Session 5: Calming down – putting out the fuse

Outcomes

- Children will share the group on occasion in which they became angry recently

- Using their own examples, children will start to identify the triggers to an incident and the subsequent fuse, thoughts/feelings and actions
- Children will evaluate a range of calming strategies, discussing the usefulness and best use of each
- Children will select three calming strategies they think will work best for them

Activities

- Revising the ground rules
- My anger record
- Calming strategies/My place to chill
- My anger record (Homework)
- Refreshments

Session 6: Using our calming down ideas

Outcomes

- Children will share with the group an occasion in which they became angry recently
- Using their own exampled, children will start to identify triggers to an incident and the subsequent fuse thoughts/feelings and actions
- Children will act out the application of one of their calming strategies in a short play
- Looking back on the group, children will identify the aspects/activates they enjoyed the most/least.

Activities

- Revising the ground rules
- My anger record
- Role play activity
- Thinking back on our time
- Refreshments

Appendix 29: Summary of pupil demographic information

Table 1: Frequency of children in each year group by school

School *		Year 3	Year 4	Year 5	Year 6
E1		2	2	1	0
E2		1	4	2	0
E3		0	1	3	2
E4		0	0	6	0
E5		0	0	1	4
E6		0	0	3	3
W1		0	0	2	2
W2	Group 1	0	1	2	1
	Group 2	0	0	3	1
W3		0	2	4	0
W4		0	5	0	0
W5		0	6	0	0
W6		0	0	1	5

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 2: Frequency of gender by school

School *		Male	Female
E1		5	0
E2		3	4
E3		6	0
E4		6	0
E5		4	1
E6		4	2
W1		4	0
W2	Group 1	2	2
	Group 2	2	2
W3		4	2
W4		5	0
W5		6	0
W6		3	3

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 3: Frequency of ethnicity by school

School *		White British	Dual heritage	Nepali	White other
E1		4	1	0	0
E2		5	2	0	0
E3		5	0	0	1
E4		6	0	0	0
E5		5	0	0	0
E6		6	0	0	0
W1		3	1	0	0
W2	Group 1	3	1	0	0
	Group 2	3	1	0	0
W3		6	0	0	0
W4		3	0	2	0
W5		6	0	0	0
W6		6	0	0	0

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 4: Frequency of primary language by school

School *		English	Ukrainian	Nepali
E1		5	0	0
E2		7	0	0
E3		5	1	0
E4		6	0	0
E5		5	0	0
E6		6	0	0
W1		4	0	0
W2	Group 1	4	0	0
	Group 2	4	0	0
W3		6	0	0
W4		3	0	2
W5		6	0	0
W6		6	0	0

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 5: Frequency of free school meals by school

School *		No	Yes	Missing data
E1		3	2	0
E2		7	0	0
E3		3	3	0
E4		3	3	0
E5		4	1	0
E6		5	1	0
W1		4	0	0
W2	Group 1	3	1	0
	Group 2	3	1	0
W3		6	0	0
W4		5	0	0
W5		6	0	0
W6		3	2	1

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 6: Attainment levels for Maths by school

School *		< 1	1	2	3	4	5	Missing
E1		0	2	2	0	1	0	0
E2		0	0	3	4	0	0	0
E3		0	0	1	2	2	1	0
E4		0	0	1	5	0	0	0
E5		0	0	1	2	2	0	0
E6		0	0	0	1	4	1	0
W1		0	0	1	0	2	1	0
W2	Group 1	0	0	2	1	1	0	0
	Group 2	0	0	2	1	0	1	0
W3		0	0	3	2	1	0	0
W4		0	0	4	1	0	0	0
W5		0	0	1	5	0	0	0
W6		0	0	2	3	0	0	1

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 7: Attainment levels for English by school

School *		< 1	1	2	3	4	5	Missing
E1		1	2	1	1	0	0	0
E2		0	1	3	3	0	0	0
E3		0	0	1	2	2	1	0
E4		0	0	4	2	0	0	0
E5		0	0	2	2	1	0	0
E6		0	0	1	0	3	2	0
W1		0	1	0	2	1	0	0
W2	Group 1	0	0	2	2	0	0	0
	Group 2	0	0	1	3	0	0	0
W3		0	1	2	2	1	0	0
W4		0	2	2	1	0	0	0
W5		0	0	4	1	1	0	0
W6		0	0	2	3	0	0	1

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Table 8: Attainment levels for Science by school

School *		<1	1	2	3	4	5	Missing
E1		0	0	4	0	1	0	0
E2		0	0	0	0	1	0	6
E3		0	0	0	0	0	0	6
E4		0	0	2	0	4	0	0
E5		0	0	0	3	2	0	0
E6		0	0	1	2	2	1	0
W1		0	0	0	1	0	1	2
W2	Group 1	0	0	1	2	0	1	0
	Group 2	0	0	1	2	1	0	0
W3		0	0	1	1	0	0	4
W4		0	0	3	2	0	0	0
W5		0	0	0	6	0	0	0
W6		0	0	0	3	2	0	1

* 'E' designates schools in the experimental condition and 'W' designates schools in the wait-list control condition.

Appendix 30: Summary of demographic information for schools

Table 1: Demographic information for schools

School	Index of multiple deprivation	Pupils on roll	Type of school	% Level 4 Maths	% Level 4 English	% Level 4 Science
E1	0.12	256	Junior	52	52	65
E2	0.14	266	Primary	78	67	78
E3	0.19	339	Primary	60	60	79
E4	0.29	349	Primary	37	43	43
E5	0.30	305	Primary	47	69	47
E6	0.06	453	Primary	75	91	75
W1	0.06	457	Primary	91	99	96
W2	0.19	309	Primary	77	77	92
W3	0.06	423	Primary	61	82	71
W4	0.23	363	Primary	80	76	95
W5	0.15	465	Primary	Missing	Missing	Missing
W6	0.09	686	Middle	57	58	81

Appendix 31: Average and standard deviation data for SDQ at baseline

Table 1: Average and standard deviation data for SDQ at baseline

School		Total	Emotion-al	Conduct	Hyper-activity	Peer	Pro-social
E1		16.60*** (5.46)	1.40* (1.52)	4.60*** (1.82)	6.60*** (3.13)	4.00** (1.22)	5.40** (2.41)
E2		17.00*** (5.67)	3.14* (3.18)	3.29** (3.04)	7.14*** (2.12)	3.42* (2.15)	5.57* (2.37)
E3		13.33** (6.28)	1.00* (1.09)	5.00*** (2.37)	4.67* (3.67)	2.67* (1.63)	6.17* (2.86)
E4		12.17** (7.03)	1.33* (1.21)	2.67** (2.07)	6.50** (3.51)	1.67* (1.86)	6.00* (1.26)
E5		20.60*** (10.16)	4.40* (4.51)	4.00*** (0.71)	7.60*** (2.07)	4.60*** (3.21)	5.40** (0.59)
E6		15.67*** (5.95)	2.33* (2.25)	3.50** (2.59)	5.33* (1.51)	4.50** (2.81)	4.83** (3.71)
W1		12.25** (2.5)	1.25* (0.50)	2.75** (2.50)	4.75* (1.26)	3.50* (3.70)	2.50*** (1.91)
W2	Group 1	18.00*** (7.53)	2.00* (2.16)	4.25*** (2.22)	8.50*** (1.91)	3.25* (2.50)	4.00*** (3.56)
	Group 2	14.00** (3.16)	3.50* (0.58)	2.75** (2.21)	4.00* (1.41)	3.75** (3.10)	5.75* (1.89)
W3		21.17*** (5.67)	4.83** (3.66)	6.00*** (1.26)	6.17** (2.40)	4.17** (2.79)	5.00** (2.83)
W4		17.60*** (7.83)	2.40* (2.30)	3.40** (2.30)	7.40*** (2.97)	4.40** (2.79)	3.60*** (2.70)
W5		17.83*** (3.06)	2.33* (2.25)	4.00*** (1.09)	8.67*** (2.80)	2.83* (1.60)	4.33*** (2.50)
W6		19.80*** (5.07)	3.80* (1.30)	5.20*** (2.95)	6.80*** (3.11)	4.00** (1.58)	5.00** (3.67)

*Scores in the normal range as described by the SDQ scoring for teacher completed questionnaires

**Scores in the borderline range as described by the SDQ scoring for teacher completed questionnaires

***Scores in the abnormal range as described by the SDQ scoring for teacher completed questionnaires

Appendix 32: Average and standard deviation data for MMCPC at baseline

Table 1: Average and standard deviation data for MMCPC at baseline

School		Internal	Unknown	Powerful others
E1		14.25 (1.52)	10.42 (0.29)	11.50 (0.66)
E2		12.31 (2.13)	11.21 (3.55)	9.10 (2.97)
E3		12.87 (0.65)	10.96 (2.56)	9.00 (1.66)
E4		14.33 (0.77)	10.20 (1.72)	11.46 (2.36)
E5		11.10 (2.22)	8.38 (3.55)	6.55 (1.19)
E6		12.50 (1.65)	10.83 (2.21)	10.29 (2.60)
W1		11.85 (2.41)	9.88 (1.18)	8.42 (0.84)
W2	Group 1	14.12 (1.05)	9.37 (3.63)	9.75 (2.80)
	Group 2	12.62 (1.03)	10.75 (2.18)	8.94 (2.07)
W3		13.12 (2.02)	12.13 (1.73)	9.63 (2.29)
W4		12.50 (2.55)	11.15 (2.67)	9.85 (2.14)
W5		11.35 (2.34)	10.97 (3.14)	10.35 (3.91)
W6		11.72 (0.80)	10.50 (2.05)	10.29 (1.80)

Appendix 33: Average and standard deviation data for Adverse Life Events questionnaire at baseline

Table 1: Average and standard deviation data for Adverse Life Events questionnaire at baseline

School		Number of adverse life events
E1		8.40 (4.04)
E2		7.14 (2.86)
E3		8.83 (1.84)
E4		12.67 (5.05)
E5		8.40 (4.93)
E6		7.83 (4.49)
W1		10.50 (4.20)
W2	Group 1	8.00 (4.97)
	Group 2	12.33 (0.58)
W3		12.17 (6.15)
W4		7.00 (3.80)
W5		10.50 (5.43)
W6		6.33 (3.26)

Appendix 34: Comparability of groups

Table 1: Mean and Standard Deviations for Number of sessions, Number of homeworks completed and average fidelity scores

Group		Number of sessions	Number of homeworks completed	Average fidelity
E1		5.40 (0.89)	1.00 (1.22)	4.83
E2		5.86 (0.38)	2.57 (0.53)	4.67
E3		5.00 (1.55)	0.50 (0.84)	5.00
E4		5.50 (0.55)	0.00 (0.00)	4.75
E5		5.60 (0.59)	1.40 (0.55)	4.67
E6		6.00 (0.00)	1.67 (0.82)	5.00
W1		5.50 (0.58)	0.25 (0.50)	5.00
W2	Group 1	6.00 (0.00)	1.75 (0.96)	4.33
	Group 2	5.75 (0.50)	2.25 (0.96)	4.50
W3		5.67 (0.52)	0.00 (0.00)	5.00
W4		5.80 (0.45)	0.20 (0.45)	4.40
W5		6.00 (0.00)	1.83 (0.98)	5.00
W6		5.20 (0.84)	2.00 (2.24)	4.67

Appendix 35: Nature of research collaboration

Nature of research collaboration

Joint consent forms were used at the outset of the research. The nature of the joint work pertained to the delivery of the group interventions and the collection of questionnaire data and background information. The author and the other 2 trainee educational psychologists delivered the questionnaires and the group intervention to 4 groups each. The Strengths and Difficulties Questionnaire data and the demographic information described within this study were shared with the fellow research workers. The Multidimensional Measure of Children's Perception of Control, Adverse Life Events questionnaire, Parenting Stress Index and information from the semi-structured interviews were utilised exclusively by the author. The interviews were undertaken exclusively by the author. A number of other questionnaires, including the Social Inclusion Survey, Guess Who and Emotional Literacy questionnaires were delivered and this data was passed to the other trainee educational psychologists. The data obtained from these questionnaires was not utilised by the author. Each trainee had their own research questions and all analysis and write up was undertaken independently.